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* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1           Web Page for STN Seminar Schedule - N. America
 NEWS  2  AUG 06   CAS REGISTRY enhanced with new experimental property tags
 NEWS  3  AUG 06   FSTA enhanced with new thesaurus edition
 NEWS  4  AUG 13   CA/CAplus enhanced with additional kind codes for granted
                   patents
 NEWS  5  AUG 20   CA/CAplus enhanced with CAS indexing in pre-1907 records
 NEWS  6  AUG 27   Full-text patent databases enhanced with predefined
                   patent family display formats from INPADOCDB
 NEWS  7  AUG 27   USPATOLD now available on STN
 NEWS  8  AUG 28   CAS REGISTRY enhanced with additional experimental
                   spectral property data
 NEWS  9  SEP 07   STN AnaVist, Version 2.0, now available with Derwent
                   World Patents Index
 NEWS 10  SEP 13   FORIS renamed to SOFIS
 NEWS 11  SEP 13   INPADOCDB enhanced with monthly SDI frequency
 NEWS 12  SEP 17   CA/CAplus enhanced with printed CA page images from
                   1967-1998
 NEWS 13  SEP 17   CAplus coverage extended to include traditional medicine
                   patents
 NEWS 14  SEP 24   EMBASE, EMBAL, and LEMBASE reloaded with enhancements
 NEWS 15  OCT 02   CA/CAplus enhanced with pre-1907 records from Chemisches
                   Zentralblatt
 NEWS 16  OCT 19   BEILSTEIN updated with new compounds
 NEWS 17  NOV 15   Derwent Indian patent publication number format enhanced
 NEWS 18  NOV 19   WPIX enhanced with XML display format
 NEWS 19  NOV 30   ICSD reloaded with enhancements
 NEWS 20  DEC 04   LINPADOCDB now available on STN
 NEWS 21  DEC 14   BEILSTEIN pricing structure to change
 NEWS 22  DEC 17   USPATOLD added to additional database clusters
 NEWS 23  DEC 17   IMSDRUGCONF removed from database clusters and STN
 NEWS 24  DEC 17   DGENE now includes more than 10 million sequences
 NEWS 25  DEC 17   TOXCENTER enhanced with 2008 MeSH vocabulary in
                   MEDLINE segment
 NEWS 26  DEC 17   MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary
 NEWS 27  DEC 17   CA/CAplus enhanced with new custom IPC display formats
 NEWS 28  DEC 17   STN Viewer enhanced with full-text patent content
                   from USPATOLD

 NEWS EXPRESS  19 SEPTEMBER 2007:  CURRENT WINDOWS VERSION IS V8.2,
               CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.

 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS LOGIN    Welcome Banner and News Items
 NEWS IPC8     For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
specific topic.
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* * * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 16:47:48 ON 02 JAN 2008

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 16:48:06 ON 02 JAN 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 1 JAN 2008 HIGHEST RN 959833-82-0
DICTIONARY FILE UPDATES: 1 JAN 2008 HIGHEST RN 959833-82-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

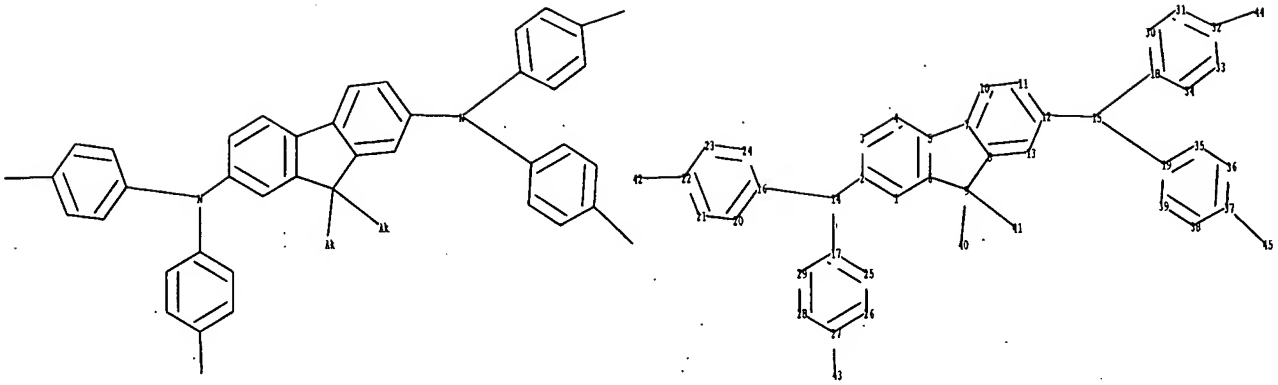
TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Program Files\Stnexp\Queries\10579215.str

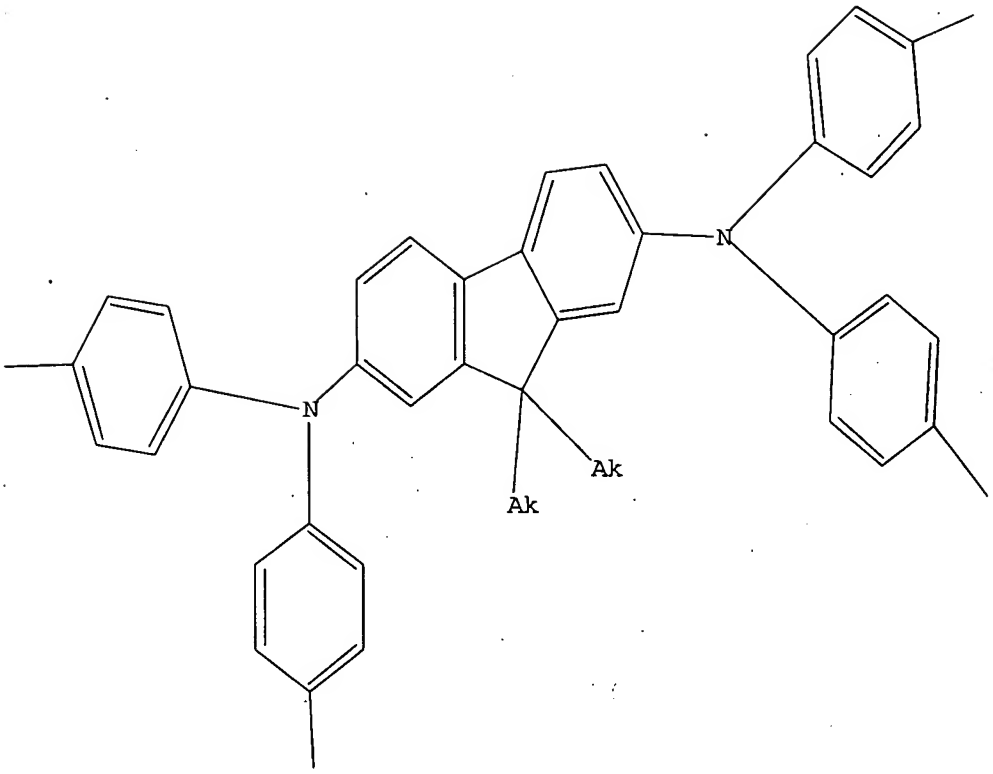


chain nodes :
14 15 40 41 42 43 44 45
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 16 17 18 19 20 21 22 23 24 25
26 27 28 29 30 31 32 33 34 35 36 37 38 39
chain bonds :
2-14 9-40 9-41 12-15 14-16 14-17 15-18 15-19 22-42 27-43 32-44 37-45
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 7-10 8-9 8-13 10-11 11-12 12-13
16-20 16-24 17-25 17-29 18-30 18-34 19-35 19-39 20-21 21-22 22-23 23-24
25-26 26-27 27-28 28-29 30-31 31-32 32-33 33-34 35-36 36-37 37-38 38-39
exact/norm bonds :
2-14 5-7 6-9 8-9 9-40 9-41 12-15 14-16 14-17 15-18 15-19
exact bonds :
22-42 27-43 32-44 37-45
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-10 8-13 10-11 11-12 12-13 16-20 16-24
17-25 17-29 18-30 18-34 19-35 19-39 20-21 21-22 22-23 23-24 25-26 26-27
27-28 28-29 30-31 31-32 32-33 33-34 35-36 36-37 37-38 38-39

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:CLASS 15:CLASS 16:Atom 17:Atom 18:Atom 19:Atom
20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom
29:Atom 30:Atom 31:Atom 32:Atom 33:Atom 34:Atom 35:Atom 36:Atom 37:Atom
38:Atom 39:Atom 40:CLASS 41:CLASS 42:CLASS 43:CLASS 44:CLASS 45:CLASS

L1 STRUCTURE UPLOADED

=> d
L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

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=> s l1 full
FULL SEARCH INITIATED 16:48:50 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    12387 TO ITERATE

100.0% PROCESSED    12387 ITERATIONS                          26 ANSWERS
SEARCH TIME: 00.00.01

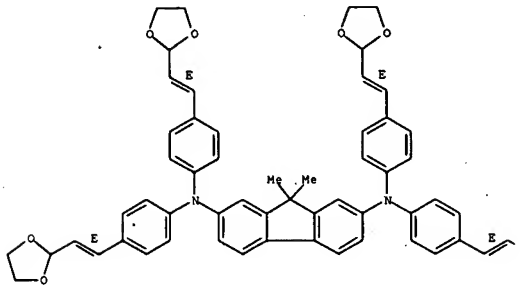
L2           26 SEA SSS FUL L1

=> d l2 1-10
```

L2 ANSWER 1 OF 26 REGISTRY COPYRIGHT 2008 ACS on STN
RN 925452-76-2 REGISTRY
ED Entered STN: 07 Mar 2007
CN 9H-Fluorene-2,7-diamine, N2,N2,N7,N7-tetrakis[4-[(1E)-2-(1,3-dioxolan-2-yl)ethenyl]phenyl]-9,9-dimethyl- (CA INDEX NAME)
FS STEREOSEARCH
MF C59 H56 N2 O8
SR CA
LC STN Files: CA, CAPLUS

Double bond geometry as shown.

PAGE 1-A



L2 ANSWER 1 OF 26 REGISTRY COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

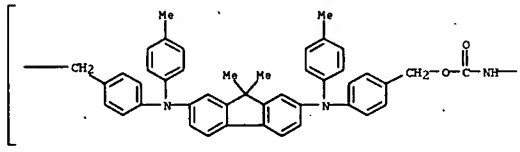
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

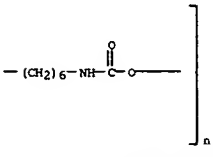
L2 ANSWER 2 OF 26 REGISTRY COPYRIGHT 2008 ACS on STN
RN 884657-43-6 REGISTRY
ED Entered STN: 17 May 2006
CN Poly[oxycarbonylimino-1,6-hexanediyliminocarbonyloxymethylene-1,4-phenylene[(4-methylphenyl)imino](9,9-dimethyl-9H-fluorene-2,7-diyl)[(4-methylphenyl)imino]-1,4-phenylenemethylene] (9CI) (CA INDEX NAME)
MF (C51 H52 N4 O4)n
CI PMS
PCT Polyamine, Polyurethane
SR CA
LC STN Files: CA, CAPLUS

RELATED POLYMERS AVAILABLE WITH POLYLINK

PAGE 1-A



PAGE 1-B



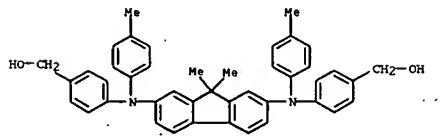
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 3 OF 26 REGISTRY COPYRIGHT 2008 ACS on STN
RN 884657-35-6 REGISTRY
ED Entered STN: 17 May 2006
CN Benzenemethanol, 4,4'-[(9,9-dimethyl-9H-fluorene-2,7-diyl)bis[(4-methylphenyl)imino]]bis-, polymer with 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)
MF (C43 H40 N2 O2 . C8 H12 N2 O2)x
CI PMS
PCT Polyamine, Polyurethane, Polyurethane formed
SR CA
LC STN Files: CA, CAPLUS

RELATED POLYMERS AVAILABLE WITH POLYLINK

CM 1

CRN 884657-34-5
CMF C43 H40 N2 O2

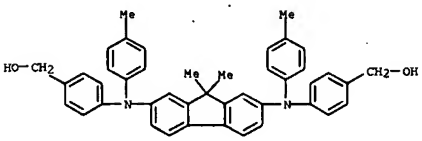


CM 2

CRN 822-06-0
CMF C8 H12 N2 O2

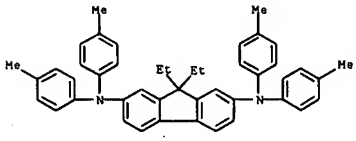
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 4 OF 26 REGISTRY COPYRIGHT 2008 ACS on STN
RN 884657-34-5 REGISTRY
ED Entered STN: 17 May 2006
CN Benzenemethanol, 4,4'-[(9,9-dimethyl-9H-fluorene-2,7-diyl)bis[(4-methylphenyl)imino]]bis- (9CI) (CA INDEX NAME)
MF C43 H40 N2 O2
CI COM
SR CA



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

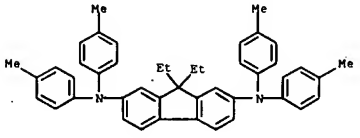
L2 ANSWER 5 OF 26 REGISTRY COPYRIGHT 2008 ACS on STN
RN 862080-32-8 REGISTRY
ED Entered STN: 30 Aug 2005
CN 9H-Fluorene-2,7-diamine, 9,9-diethyl-N,N,N',N'-tetrakis(4-methylphenyl)-, radical ion(2+) (9CI) (CA INDEX NAME)
MF C45 H44 N2
CI RIS
SR CA
LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 6 OF 26 REGISTRY COPYRIGHT 2008 ACS on STN
RN 862012-65-5 REGISTRY
ED Entered STN: 29 Aug 2005
CN 9H-Fluorene-2,7-diamine, 9,9-diethyl-N,N,N',N'-tetrakis(4-methylphenyl)-, radical ion(1+) (9CI) (CA INDEX NAME)
MF C45 H44 N2
CI RIS
SR CA
LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

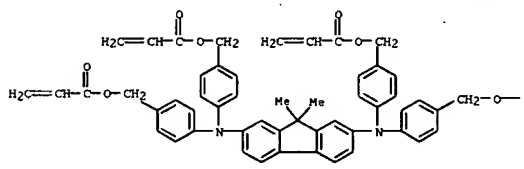
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 7 OF 26 REGISTRY COPYRIGHT 2008 ACS on STN
RN 720712-43-6 REGISTRY
ED Entered STN: 02 Aug 2004
CN 2-Propenoic acid, (9,9-dimethyl-9H-fluorene-2,7-diyl)bis[nitrilobis(4,1-phenylenemethylene)] ester, homopolymer (9CI) (CA INDEX NAME)
MF (C55 H48 N2 O8)x
CI PMS
PCT Polyacrylic
SR CA
LC STN Files: CA, CAPLUS

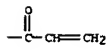
CM 1

CRN 720712-42-5
CMF C55 H48 N2 O8

PAGE 1-A



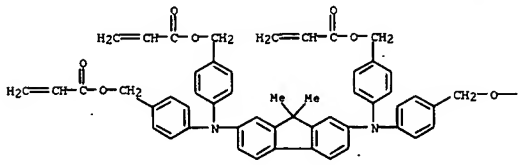
PAGE 1-B



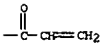
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 8 OF 26 REGISTRY COPYRIGHT 2008 ACS on STN
RN 720712-42-5 REGISTRY
ED Entered STN: 02 Aug 2004
CN 2-Propenoic acid, (9,9-dimethyl-9H-fluorene-2,7-diyl)bis[nitrilobis(4,1-phenylenemethylene)] ester (9CI) (CA INDEX NAME)
MF C55 H48 N2 O8
CI COM
SR CA

PAGE 1-A



PAGE 1-B



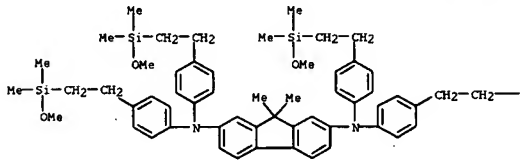
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L2 ANSWER 9 OF 26 REGISTRY COPYRIGHT 2008 ACS on STN
RN 660850-24-8 REGISTRY
ED Entered STN: 10 Mar 2004
CN 9H-Fluorene-2,7-diamine, N,N,N',N'-tetrakis[4-[2-(methoxydimethylsilyl)ethyl]phenyl]-9,9-dimethyl-, homopolymer (9CI) (CA INDEX NAME)
MF (C59 H80 N2 O4 Si4)x
CI PMS
PCT Polyether, Polyether only
SR CA
LC STN Files: CA, CAPLUS

CM 1

CRN 660850-23-7
CMF C59 H80 N2 O4 Si4

PAGE 1-A

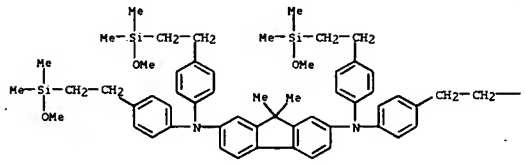


PAGE 1-B

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 10 OF 26 REGISTRY COPYRIGHT 2008 ACS on STN
RN 660850-23-7 REGISTRY
ED Entered STN: 10 Mar 2004
CN 9H-Fluorene-2,7-diamine, N,N,N',N'-tetrakis[4-[2-(methoxydimethylsilyl)ethyl]phenyl]-9,9-dimethyl- (9CI) (CA INDEX NAME)
MF C59 H80 N2 O4 Si4
CI COM
SR CA
LC STN Files: CA, CAPLUS

PAGE 1-A



PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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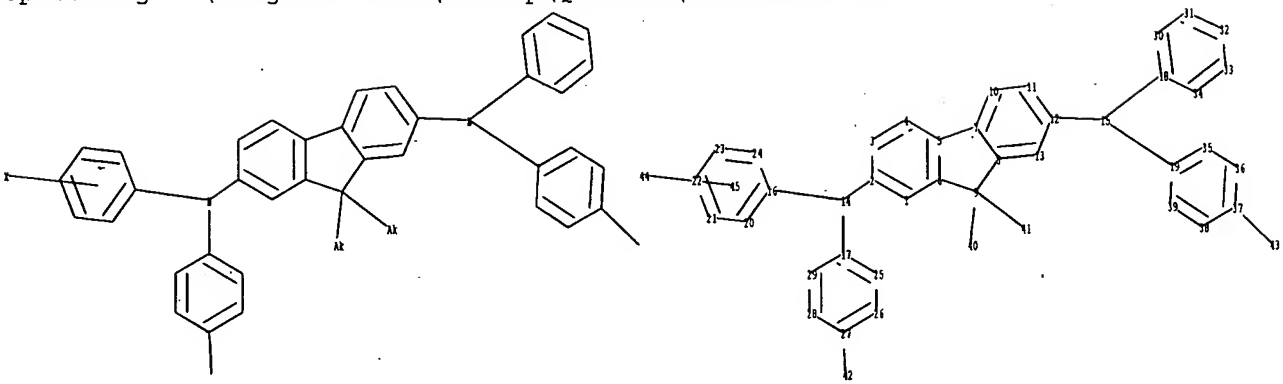

chain nodes :
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ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 16 17 18 19 20 21 22 23 24 25

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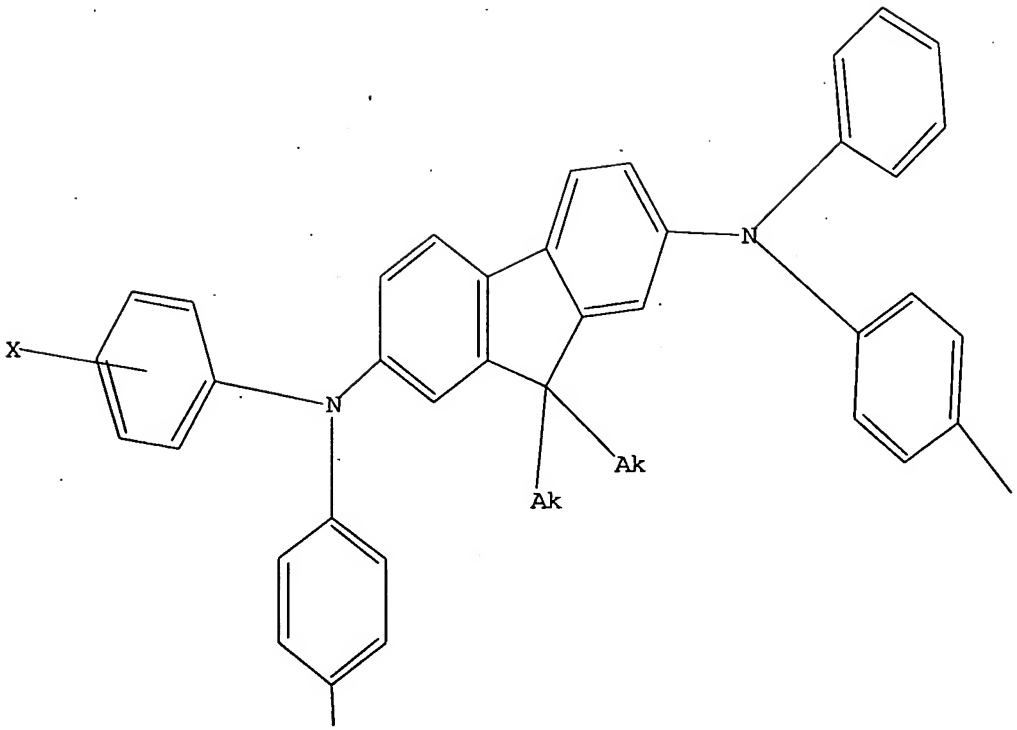
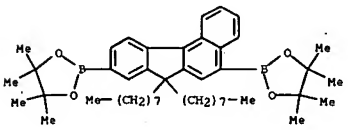
L3 HAS NO ANSWERS
L3 STR



L4 ANSWER 1 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 936947-26-1 REGISTRY
ED Entered STN: 11 Jun 2007
CN 9H-Fluorene-2,7-diamine, N2,N7-bis(4-bromophenyl)-N2,N7-bis(4-methylphenyl)-9,9-dioctyl-, polymer with 5,9-dibromo-7,7-dioctyl-7H-benzo[c]fluorene and 2,2'-(7,7-dioctyl-7H-benzo[c]fluorene-5,9-diyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane] (CA INDEX NAME)
MF (C55 H62 Br2 N2 . C45 H66 B2 O4 . C33 H42 Br2)x
CI PMS
PCT Polyether, Polyether only
SR CA
LC STN Files: CA, CAPLUS

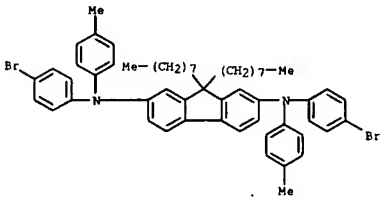
CM 1

CRN 854952-68-4
CMF C45 H66 B2 O4



CM 2

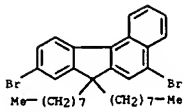
CRN 852535-44-5
CMF C55 H62 Br2 N2



CM 3

CRN 794519-14-5
CMF C33 H42 Br2

L4 ANSWER 1 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN (Continued)

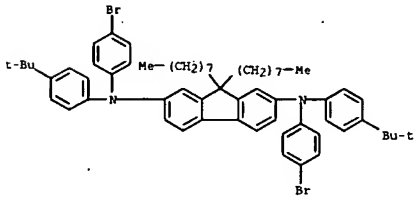


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 2 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 882567-07-9 REGISTRY
ED Entered STN: 02 May 2006
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 2,7-dibromo-9,10-bis[4-(1,1-dimethylethyl]phenyl]-9,10-dihydro-9,10-dimethoxyphenanthrene and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)
MF (C61 H74 Br2 N2 . C49 H62 B2 O8 . C36 H38 Br2 O2)x
CI PMS
PCT Polyether, Polyether formed, Polyether
SR CA
LC STN Files: CA, CAPLUS

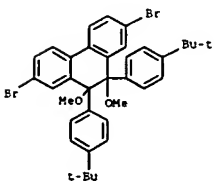
CM 1

CRN 868703-33-7
CMF C61 H74 Br2 N2



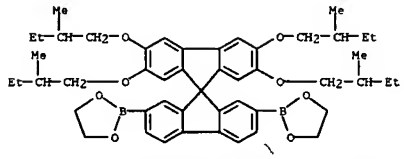
CM 2

CRN 844700-79-4
CMF C36 H38 Br2 O2



CM 3

L4 ANSWER 2 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN (Continued)
CRN 396123-43-6
CMF C49 H62 B2 O8

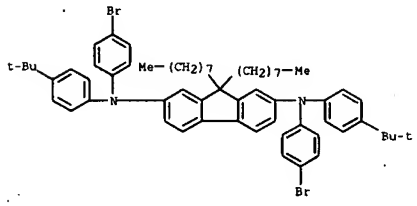


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 3 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 882567-06-8 REGISTRY
ED Entered STN: 02 May 2006
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 4,7-bis(5-bromo-2-thienyl)-2,1,3-benzothiadiazole, 9-[3,4-bis(2-methylbutoxy)phenyl]-2,7-dibromo-9-(2,5-dimethylphenyl)-9H-fluorene, 2,2'-[[2-[(3,7-dimethyloctyl)oxy]-5-methoxy-1,4-phenylene]di-2,1-ethenediyl]bis[5-bromothiophene] and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)
MF (C61 H74 Br2 N2 . C49 H62 B2 O8 . C37 H40 Br2 O2 . C29 H34 Br2 O2 S2 . C14 H6 Br2 N2 S3)x
CI PMS
PCT Polyether, Polyether formed, Polyother, Polystyrene, Polyvinyl
SR CA
LC STN Files: CA, CAPLUS

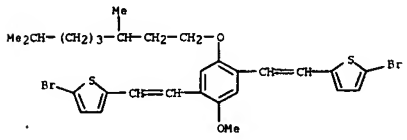
CM 1

CRN 868703-33-7
CMF C61 H74 Br2 N2



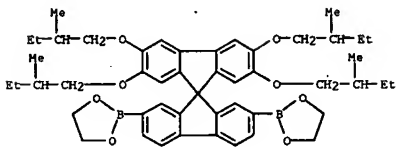
CM 2

CRN 848892-54-6
CMF C29 H34 Br2 O2 S2



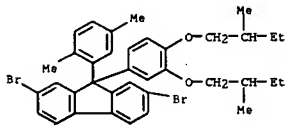
CM 3

L4 ANSWER 3 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN (Continued)
CRN 396123-43-6
CMF C49 H62 B2 O8



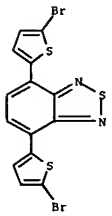
CM 4

CRN 396123-39-0
CMF C37 H40 Br2 O2



CM 5

CRN 288071-87-4
CMF C14 H6 Br2 N2 S3



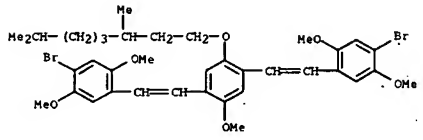
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

L4 ANSWER 3 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN (Continued)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 4 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 868703-47-3 REGISTRY
ED Entered STN: 23 Nov 2005
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 1,4-bis[2-(4-bromo-2,5-dimethoxyphenyl)ethenyl]-2-[(3,7-dimethyloctyl)oxy]-5-methoxybenzene, 9-[3,4-bis(2-methylbutoxy)phenyl]-2,7-dibromo-9-(2,5-dimethylphenyl)-9H-fluorene and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)
MF (C61 H74 Br2 N2 . C49 H62 B2 O8 . C37 H46 Br2 O6 . C37 H40 Br2 O2)x
CI PMS
PCT Polyether, Polyether formed, Polyother, Polystyrene
SR CA
LC STN Files: CA, CAPLUS

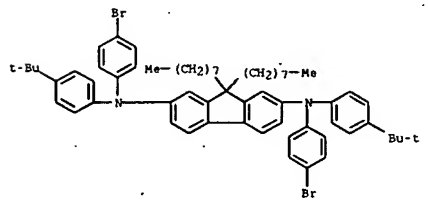
CM 1

CRN 868703-46-2
CMF C37 H46 Br2 O6



CM 2

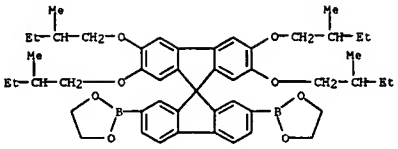
CRN 868703-33-7
CMF C61 H74 Br2 N2



CM 3

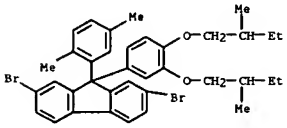
CRN 396123-43-6
CMF C49 H62 B2 O8

L4 ANSWER 4 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN (Continued)



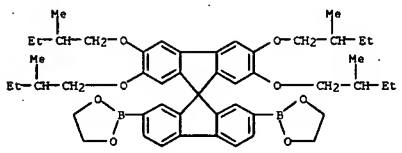
CM 4

CRN 396123-39-0
CMF C37 H40 Br2 O2



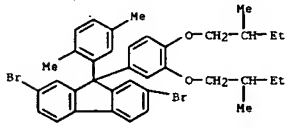
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 5 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN (Continued)
CMF C49 H62 B2 O8



CM 4

CRN 396123-39-0
CMF C37 H40 Br2 O2

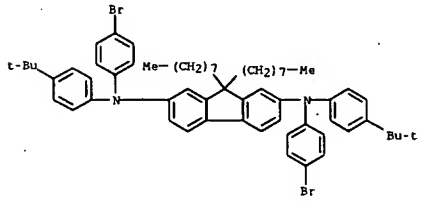


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 5 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 868703-45-1 REGISTRY
ED Entered STN: 23 Nov 2005
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 2',7'-bis[2-(4-bromophenyl)ethenyl]-2,3,6,7-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene], 9-[3,4-bis(2-methylbutoxy)phenyl]-2,7-dibromo-9-(2,5-dimethylphenyl)-9H-fluorene and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)
MF (C61 H74 Br2 N2 . C61 H66 Br2 O4 . C49 H62 B2 O8 . C37 H40 Br2 O2)x
CI PMS
PCT Polyether, Polyether formed, Polyether, Polyvinyl
SR CA
LC STN Files: CA, CAPLUS

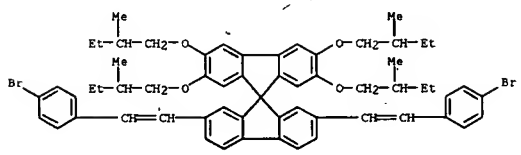
CM 1

CRN 868703-33-7
CMF C61 H74 Br2 N2



CM 2

CRN 501434-76-0
CMF C61 H66 Br2 O4



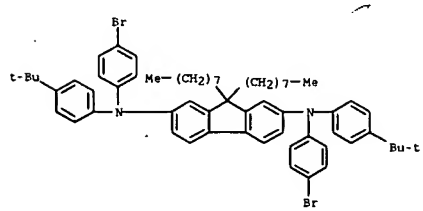
CM 3

CRN 396123-43-6

L4 ANSWER 6 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 868703-44-0 REGISTRY
ED Entered STN: 23 Nov 2005
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 9,10-dibromoanthracene, 2',7'-dibromo-2,3,6,7-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene] and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)
MF (C61 H74 Br2 N2 . C49 H62 B2 O8 . C45 H54 Br2 O4 . C14 H8 Br2)x
CI PMS
PCT Polyether, Polyether formed, Polyether
SR CA
LC STN Files: CA, CAPLUS

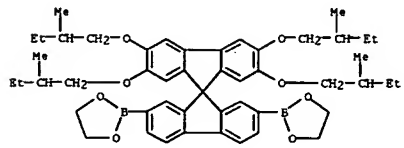
CM 1

CRN 868703-33-7
CMF C61 H74 Br2 N2



CM 2

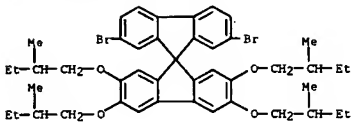
CRN 396123-43-6
CMF C49 H62 B2 O8



CM 3

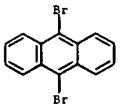
CRN 395059-23-1
CMF C45 H54 Br2 O4

L4 ANSWER 6 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN (Continued)



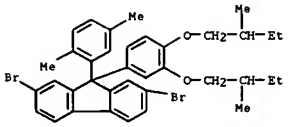
CM 4

CRN 523-27-3
CMF C14 H8 Br2



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 7 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN (Continued)

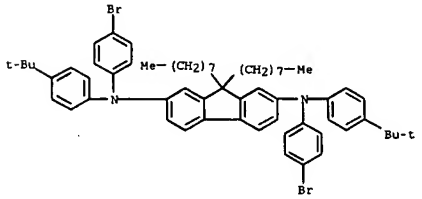


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 7 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 868703-43-9 REGISTRY
ED Entered STN: 23 Nov 2005
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 9-[3,4-bis(2-methylbutoxy)phenyl]-2,7-dibromo-9-(2,5-dimethylphenyl)-9H-fluorene and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)
MF (C61 H74 Br2 N2 . C49 H62 B2 O8 . C37 H40 Br2 O2)x
CI PMS
PCT Polyether, Polyether formed, Polyother
SR CA
LC STN Files: CA, CAPLUS

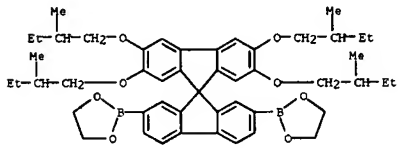
CM 1

CRN 868703-33-7
CMF C61 H74 Br2 N2



CM 2

CRN 396123-43-6
CMF C49 H62 B2 O8



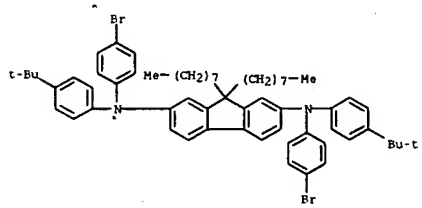
CM 3

CRN 396123-39-0
CMF C37 H40 Br2 O2

L4 ANSWER 8 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 868703-42-8 REGISTRY
ED Entered STN: 23 Nov 2005
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 2',7'-dibromo-2,3,6,7-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene] and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)
MF (C61 H74 Br2 N2 . C49 H62 B2 O8 . C45 H54 Br2 O4)x
CI PMS
PCT Polyether, Polyether formed, Polyother
SR CA
LC STN Files: CA, CAPLUS

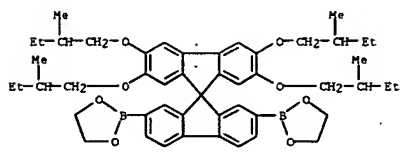
CM 1

CRN 868703-33-7
CMF C61 H74 Br2 N2



CM 2

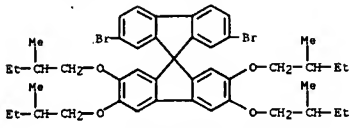
CRN 396123-43-6
CMF C49 H62 B2 O8



CM 3

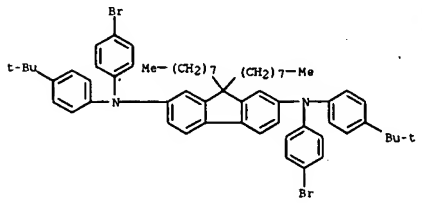
CRN 395059-23-1
CMF C45 H54 Br2 O4

L4 ANSWER 8 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN (Continued)



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 9 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 868703-33-7 REGISTRY
ED Entered STN: 23 Nov 2005
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl- (9CI) (CA INDEX NAME)
MF C61 H74 Br2 N2
CI COM
SR CA
LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 10 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 852535-49-0 REGISTRY
ED Entered STN: 20 Jun 2005
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-methylphenyl)-9,9-dioctyl-, polymer with 2,7-dibromo-9,9-bis[4-(hexyloxy)phenyl]-9H-fluorene and 2,2'-(9,9-dioctyl-9H-fluorene-2,7-diyl)bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)
MF (C55 H62 Br2 N2 . C37 H40 Br2 O2 . C33 H48 B2 O4)x
CI PMS
PCT Polyether, Polyether formed, Polyother
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

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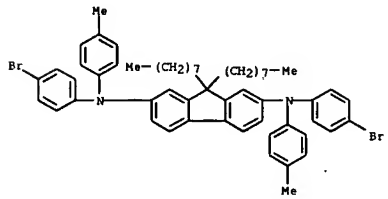
CRN 852535-44-5
CMF C55 H62 Br2 N2



CM 2

CRN 690994-34-4
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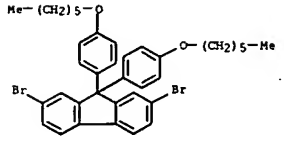
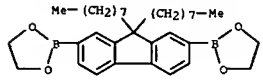


CM 3

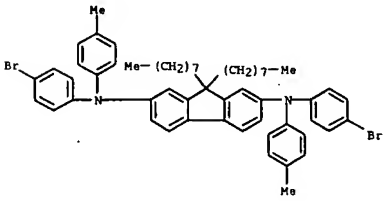
CRN 210347-49-2
CMF C33 H48 B2 O4

L4 ANSWER 10 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN (Continued)



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 11 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 852535-44-5 REGISTRY
ED Entered STN: 20 Jun 2005
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-methylphenyl)-9,9-dioctyl- (9CI) (CA INDEX NAME)
MF C55 H62 Br2 N2
CI COM
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	401.94	402.15

FILE 'CAPLUS' ENTERED AT 16:53:46 ON 02 JAN 2008
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FILE COVERS 1907 - 2 Jan 2008 VOL 148 ISS 1
FILE LAST UPDATED: 1 Jan 2008 (20080101/ED)

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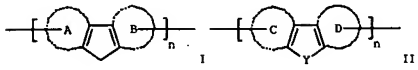
L5 4 L4

=> d l5 1-4 ibib abs hitstr

L5 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:564481 CAPLUS
DOCUMENT NUMBER: 146:523130
TITLE: Polymers with good heat resistance and luminescent intensity for electroluminescence elements
INVENTOR(S): Fukushima, Daisuke; Tsubata, Yoshiaki; Anryu, Makoto
PATENT ASSIGNEE(S): Sumitomo Chemical Company, Limited, Japan
SOURCE: PCT Int. Appl., 117pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

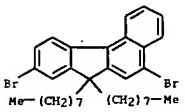
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007058368	A1	20070524	WO 2006-JP323257	20061115
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
JP 2007162009	A	20070628	JP 2006-310009	20061116
PRIORITY APPLN. INFO.:			JP 2005-333759	A 20051118

GI



AB Title polymers comprise ≥1 repeat unit [Ar2N(Ar1)ZN(Ar1)Ar2] and ≥1 repeat unit selected I and II, wherein Ar1 = aryl or univalent aromatic heterocyclic group; Ar2 = arylene or bivalent aromatic heterocyclic group; and Z = bivalent aromatic group having a fused ring structure; rings A, B = independently aromatic hydrocarbon ring (≥1 of the rings A and B = aromatic hydrocarbon ring in which ≥2 benzene rings are fused); Rw, Rx = independently hydrogen atom or alkyl; rings C, D = independently aromatic ring; Y = O, S, or OC(Rk)2; Rk = H or alkyl. Thus, 0.11 mol 9,10-dibromoanthracene and 0.22 mol N-(4-tert-butylphenyl)aniline were reacted in the presence of 0.27 mmol tris(benzylideneacetone)dipalladium and 9 mmol tri-tert-butylphosphine at 100°, brominated with N-bromosuccinimide to give N,N'-bis[4-(1,1-dimethylethyl)phenyl]-N,N'-bis(4-bromophenyl)-9,10-Anthracenediamine, 0.24 mmol of which was polymerized with 3.76 mmol 5,9-dibromo-7,7-dioctyl-7H-benzo[c]fluorene and 3.96 mmol 2,2'-(7,7-dioctyl-7H-benzo[c]fluorene-5,9-diyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane] at 105° for 4.5 h in the presence of 2.7 mg palladium acetate, 29.6 mg tris(2-methoxyphenyl)phosphine, and 0.52 g Aliquat 336 to give a copolymer with Mw 2.3 + 105, fluorescence

L5 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

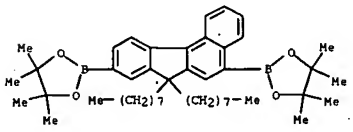


REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
intensity 7.1, and glass transition temp. 136°.
IT 936947-26-1P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polymers with good heat resistance and luminescent intensity for electroluminescence elements)
RN 936947-26-1 CAPLUS
CN 9H-Fluorene-2,7-diamine, N2,N7-bis(4-bromophenyl)-N2,N7-bis(4-methylphenyl)-9,9-dioctyl-, polymer with 5,9-dibromo-7,7-dioctyl-7H-benzo[c]fluorene and 2,2'-(7,7-dioctyl-7H-benzo[c]fluorene-5,9-diyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane] (CA INDEX NAME)

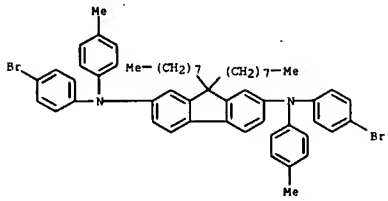
CM 1

CRN 854952-68-4
CMF C45 H66 B2 O4



CM 2

CRN 852535-44-5
CMF C55 H62 Br2 N2



CM 3

CRN 794519-14-5
CMF C33 H42 Br2

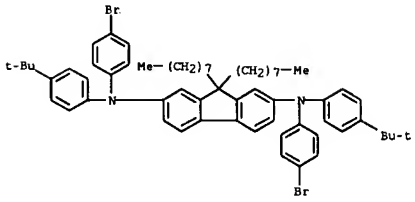
L5 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:343128 CAPLUS
DOCUMENT NUMBER: 144:391623
TITLE: Electronic devices containing organic semiconductors with low halogen content
INVENTOR(S): Spreitzer, Hubert; Falcou, Aurelie; Scheurich, Rene; Schulte, Niels; Buesing, Arne; Stoessel, Philipp
PATENT ASSIGNEE(S): Merck Patent GmbH, Germany
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006037458	A1	20060413	WO 2005-EP10112	20050920
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1794218	A1	20070613	EP 2005-784377	20050920
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
PRIORITY APPLN. INFO.:			EP 2004-23475	A 20041001
			WO 2005-EP10112	W 20050920

AB The invention relates to electronic devices containing organic semiconductors with a halogen content < 20 ppm. As a result, the service life and efficiency of the corresponding electronic devices is increased, and such materials are more suitable for use in organic electronic devices than materials having higher halogen content. In one embodiment, low mol. weight organic or polymeric semiconductors are obtained by coupling reactions involving reactive halogens, followed by optional isolation of the semiconductors, and treatment with a reducing agent until the halogen content is < 20 ppm.
IT 882567-06-8DP, ditolylaminophenyl- and dibutoxyphenyl-terminated
882567-07-9DP, ditolylaminophenyl- and dibutoxyphenyl-terminated
RL: DEV (Device component use); IMF (Industrial manufacture); PUR (Purification or recovery); PREP (Preparation); USES (Uses)
(electronic devices containing organic semiconductors with low halogen content)
RN 882567-06-8 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 4,7-bis(5-bromo-2-thienyl)-2,1,3-benzothiadiazole, 9-[3,4-bis(2-methylbutoxy)phenyl]-2,7-dibromo-9-(2,5-dimethylphenyl)-9H-fluorene, 2,2'-[[2-[(3,7-dimethyloctyl)oxy]-5-methoxy-1,4-phenylene]di-2,1-ethenediyl]bis[5-bromothiophene] and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)

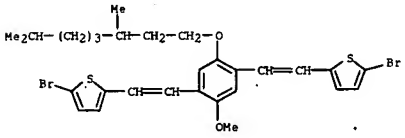
L5 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
CM 1

CRN 868703-33-7
CMF C61 H74 Br2 N2



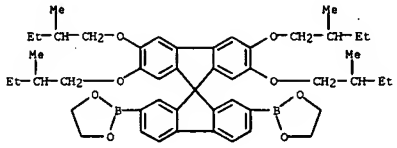
CM 2

CRN 848892-54-6
CMF C29 H34 Br2 O2 S2



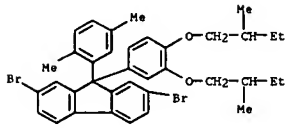
CM 3

CRN 396123-43-6
CMF C49 H62 B2 O8



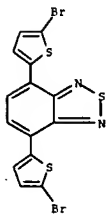
L5 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
CM 4

CRN 396123-39-0
CMF C37 H40 Br2 O2



CM 5

CRN 288071-87-4
CMF C14 H6 Br2 N2 S3

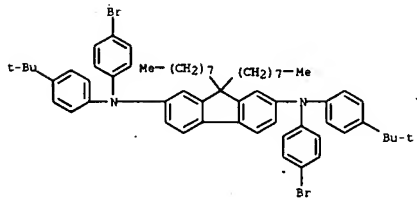


RN 882567-07-9 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 2,7-dibromo-9,10-bis[4-(1,1-dimethylethyl)phenyl]-9,10-dihydro-9,10-dimethoxyphenanthrene and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)

CM 1

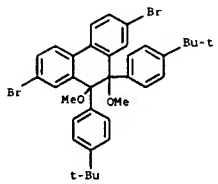
CRN 868703-33-7
CMF C61 H74 Br2 N2

L5 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



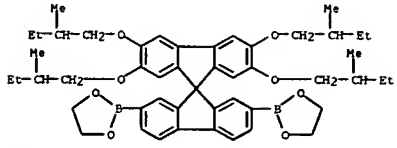
CM 2

CRN 844700-79-4
CMF C36 H38 Br2 O2



CM 3

CRN 396123-43-6
CMF C49 H62 B2 O8



L5 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

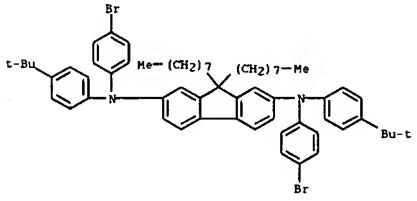
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1170527 CAPLUS
DOCUMENT NUMBER: 143:441496
TITLE: Polymers comprising planar arylamine or arylarsine or arylphosphine units and bifunctional monomers for preparing them and their use in electronic devices
INVENTOR(S): Parham, Amir; Heun, Susanne; Falcou, Aurelie; Buesing, Arne; Pan, Junyou; Becker, Heinrich
PATENT ASSIGNEE(S): Covion Organic Semiconductors GmbH, Germany
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

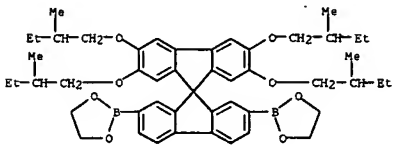
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005104263	A1	20051103	WO 2005-EP4447	20050426
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 102004020299	A1	20051201	DE 2004-102004020299	20040426
EP 1741148	A1	20070110	EP 2005-741399	20050426
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR				
CN 1947274	A	20070411	CN 2005-80013203	20050426
JP 2007534814	T	20071129	JP 2007-509954	20050426
PRIORITY APPLN. INFO.:			DE 2004-102004020299A	20040426
			WO 2005-EP4447 W	20050426

AB Conjugated or partly conjugated polymers are described which comprise ≥0.1 mol % of a repeating unit described by the general formula Ar1-A(Ar4)-[X-A(Ar2)]n-X-A(Ar3)-Ar5 (A are independently selected at each occurrence from N, P, and As; X are independently selected at each occurrence from (un)substituted bivalent planar C6-40 conjugated systems that include ≥2 arylene groups; Ar1-5 = (un)substituted (hetero)aromatic C2-40 ring systems with the restriction that Ar1 and Ar5 are not condensed ring systems when they are not directly attached to the polymer backbone, the unit being attached to the polymer backbone by ≥1 of Ar1 and Ar5; and n = 0, 1, or 2) (excepting certain specified arylene vinylene-unit containing polymers). Bifunctional monomers from which the repeating units may be derived are also described. The polymers may incorporate addnl. repeating units which may affect the morphol. or emission characteristics of the polymer, which can increase the electron-injection, hole-injection, electron-transporting, or hole-transporting capabilities of the polymer, which can emit light from a triplet state, and/or which can facilitate energy transfer from a singlet to a triplet state. The use of the polymers or of blends containing them in electronic devices (e.g., polymer organic light-emitting diodes, organic FETs,



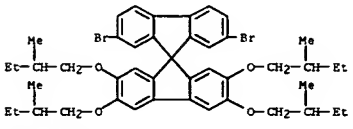
CM 2

CRN 396123-43-6
CMF C49 H62 B2 O8



CM 3

CRN 395059-23-1
CMF C45 H54 Br2 O4

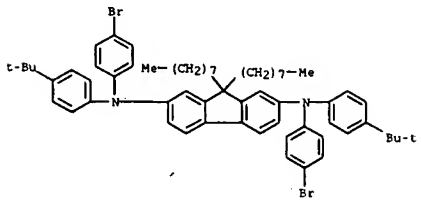


RN 868703-43-9 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 9-[3,4-bis(2-methylbutoxy)phenyl]-2,7-dibromo-9-(2,5-dimethylphenyl)-9H-fluorene and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)

org. integrated circuits, org. thin-film transistors, org. solar cells, org. field quenching devices, and org. laser diodes) is also described.

IT 868703-33-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monomer; polymers comprising planar arylamine or arylarsine or arylphosphine units and bifunctional monomers for preparing them and their use in electronic devices)

RN 868703-33-7 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl- (9CI) (CA INDEX NAME)



IT 868703-42-8P 868703-43-9P 868703-44-0P
868703-45-1P 868703-47-3P
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(polymers comprising planar arylamine or arylarsine or arylphosphine units and bifunctional monomers for preparing them and their use in electronic devices)

RN 868703-42-8 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 2',7'-dibromo-2,3,6,7-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene] and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)

CM 1

CRN 868703-33-7
CMF C61 H74 Br2 N2

CM 1

CRN 868703-33-7
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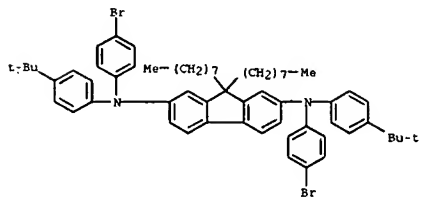
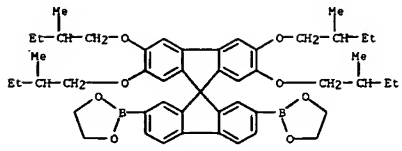


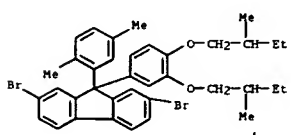
CM 2

CRN 396123-43-6
CMF C49 H62 B2 O8



CM 3

CRN 396123-39-0
CMF C37 H40 Br2 O2

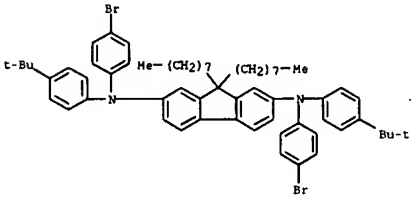


RN 868703-44-0 CAPLUS

L5 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 9,10-dibromoanthracene, 2',7'-dibromo-2,3,6,7-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene] and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)

CM 1

CRN 868703-33-7
CMF C61 H74 Br2 N2



CM 2

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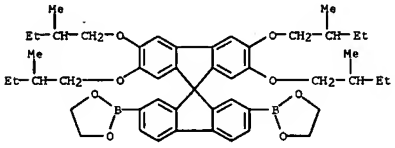
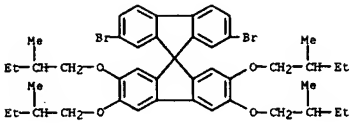


CM 3

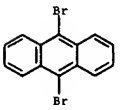
CRN 395059-23-1
CMF C45 H54 Br2 O4

L5 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



CM 4

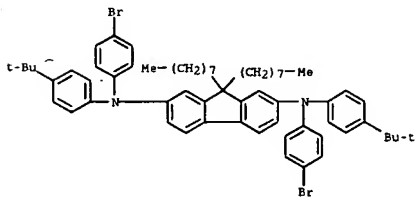
CRN 523-27-3
CMF C14 H8 Br2



RN 868703-45-1 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 2',7'-bis[2-(4-bromophenyl)ethenyl]-2,3,6,7-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene], 9-[3,4-bis(2-methylbutoxy)phenyl]-2,7-dibromo-9-(2,5-dimethylphenyl)-9H-fluorene and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)

CM 1

CRN 868703-33-7
CMF C61 H74 Br2 N2



CM 2

L5 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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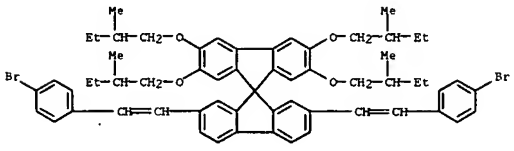
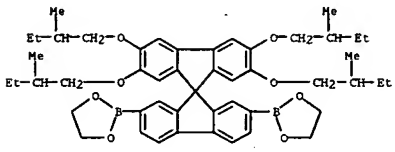


CM 3

CRN 396123-43-6
CMF C49 H62 B2 O8



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CRN 396123-39-0
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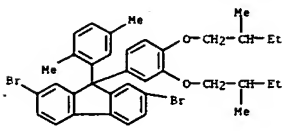
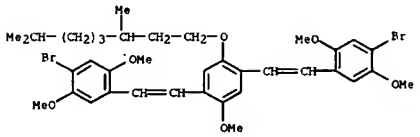


RN 868703-47-3 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 1,4-bis[2-(4-bromo-2,5-dimethoxyphenyl)ethenyl]-2-[(3,7-dimethyloctyl)oxy]-5-methoxybenzene, 9-[3,4-bis(2-methylbutoxy)phenyl]-2,7-dibromo-9-(2,5-dimethylphenyl)-9H-fluorene and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-

L5 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)

CM 1

CRN 868703-46-2
CMF C37 H46 Br2 O6



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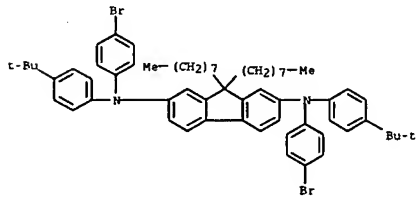
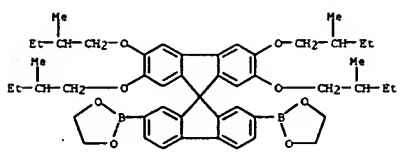
CRN 868703-33-7
CMF C61 H74 Br2 N2



CM 3

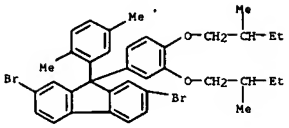
CRN 396123-43-6
CMF C49 H62 B2 O8



L5 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

CM 4

CRN 396123-39-0
CMF C37 H40 Br2 O2



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:472106 CAPLUS
DOCUMENT NUMBER: 143:8902
TITLE: Halogenated bisdiarylaminopolycyclic aromatic compound-based polymers for light emitting diode devices
INVENTOR(S): Hudack, Michelle L.; Yu, Wanglin; Inbasekaran, Michael; Wu, Weishi; Welsh, Dean M.; O'Brien, James J.
PATENT ASSIGNEE(S): Dow Global Technologies Inc., USA
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005049546	A1	20050602	WO 2004-US36707	20041103
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
GB 2422838	A	20060809	GB 2006-9500	20041103
DE 112004002193	T5	20061012	DE 2004-112004002193	20041103
CN 1894199	A	20070110	CN 2004-80033613	20041103
JP 2007512249	T	20070517	JP 2006-539638	20041103
US 2007126345	A1	20070607	US 2006-579215	20060922
PRIORITY APPLN. INFO.:			US 2003-520070P P	20031114
			WO 2004-US36707 W	20041103

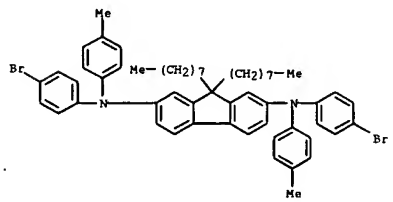
OTHER SOURCE(S): MARPAT 143:8902

AB Title polymers are prepared from halogenated compds. ArAr'NZNArAr', wherein Ar, Ar' = independently (un)substituted aryl groups and Z = polycyclic arylene group (≥1 of the Ar' groups = haloaryl group). Devices using polymers prepared from the halogenated compds. exhibit improved performance and longer lifetime, presumably as a result of the presence of the geometrically constrained diarylaminopolycyclic aromatic groups in the polymer backbone. Thus, 2,7-dibromo-9,9-dioctylfluorene 27.4, tri-o-tolylphosphine 2.435, and 4-methyldiphenylamine 22.91 g were refluxed in the presence of 0.90 g palladium acetate, 12.5 of the resulting 2,7-bis(4-methyldiphenylamino)-9,9-dioctylfluorene was treated with 5.91 g N-bromosuccinimide to give 2,7-bis(4-methyl-4'-bromodiphenylamino)-9,9-dioctylfluorene, 0.73 g of which was polymerized with 2.85 g 2,7-bis(1,3,2-dioxaborolan-2-yl)-9,9-dioctylfluorene and 3.06 g 2,7-dibromo-9,9-bis(4-hexyloxyphenyl)fluorene in the presence of 0.91 g Aliquat 336 (phase transfer agent), 5 mg trans-dichlorobis(triphenylphosphine)palladium, and 2 M sodium carbonate for 4.8 h, and 0.22 g Ph boronic acid was added therein and stirred to give a copolymer with Mn 103,867 and polydispersity 2.92, which was fabricated into a blue light emitting device, showing average brightness 200 cd/m2 at 4.43 V and average light efficiency 2.254 cd/A.

IT 852535-44-5P

L5 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(monomer; prepn. of halogenated bisdiarylaminopolycyclic arom. compd.-based polymers for light emitting diode devices)

RN 852535-44-5 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-methylphenyl)-9,9-dioctyl- (9CI) (CA INDEX NAME)

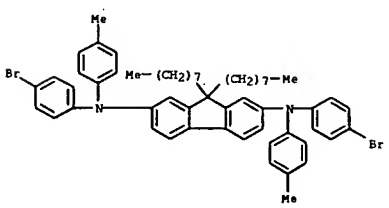


IT 852535-49-0P
RL: DEV (Device component use); IMF (Industrial manufacture); PRP (Properties); PUR (Purification or recovery); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of halogenated bisdiarylaminopolycyclic aromatic compound-based polymers for light emitting diode devices)

RN 852535-49-0 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-methylphenyl)-9,9-dioctyl-, polymer with 2,7-dibromo-9,9-bis(4-(hexyloxy)phenyl)-9H-fluorene and 2,2'-(9,9-dioctyl-9H-fluorene-2,7-diyl)bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)

CM 1

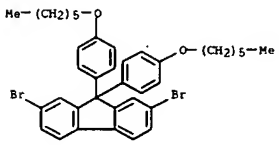
CRN 852535-44-5
CMF C55 H62 Br2 N2



L5 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

CM 2

CRN 690994-34-4
CMF C37 H40 Br2 O2



CM 3

CRN 210347-49-2
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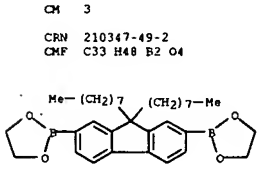

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Structure attributes must be viewed using STN Express query preparation.

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100.0% PROCESSED    21144 ITERATIONS                          37 ANSWERS
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L7 ANSWER 1 OF 37 REGISTRY COPYRIGHT 2008 ACS on STN
RN 936947-26-1 REGISTRY
ED Entered STN: 11 Jun 2007
CN 9H-Fluorene-2,7-diamine, N2,N7-bis(4-bromophenyl)-N2,N7-bis(4-methylphenyl)-9,9-dioctyl-, polymer with 5,9-dibromo-7,7-dioctyl-7H-benzo[c]fluorene and 2,2'-(7,7-dioctyl-7H-benzo[c]fluorene-5,9-diyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane] (CA INDEX NAME)
MF (C55 H62 Br2 N2 . C45 H66 B2 O4 . C33 H42 Br2)x
CI PMS
PCT Polyether, Polyether only
SR CA
LC STN Files: CA, CAPLUS

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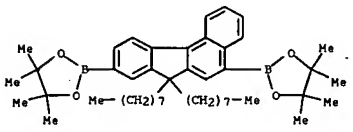
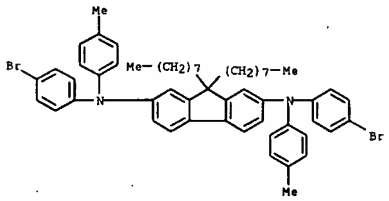
CRN 854952-68-4
CMF C45 H66 B2 O4



CM 2

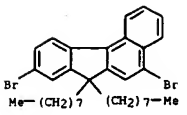
CRN 852535-44-5
CMF C55 H62 Br2 N2



CM 3

CRN 794519-14-5
CMF C33 H42 Br2

L7 ANSWER 1 OF 37 REGISTRY COPYRIGHT 2008 ACS on STN (Continued)



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L7 ANSWER 2 OF 37 REGISTRY COPYRIGHT 2008 ACS on STN
RN 882567-07-9 REGISTRY
ED Entered STN: 02 May 2006
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 2,7-dibromo-9,10-bis[4-(1,1-dimethylethyl)phenyl]-9,10-dihydro-9,10-dimethoxyphenanthrene and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)
MF (C61 H74 Br2 N2 . C49 H62 B2 O8 . C36 H38 Br2 O2)x
CI PMS
PCT Polyether, Polyether formed, Polyether
SR CA
LC STN Files: CA, CAPLUS

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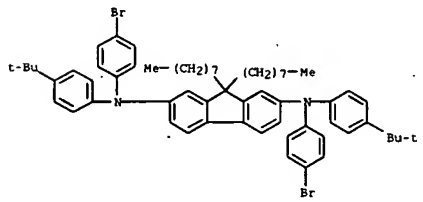
CRN 868703-33-7
CMF C61 H74 Br2 N2



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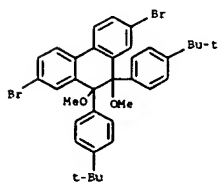
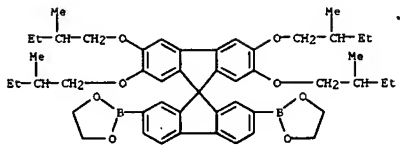
CRN 844700-79-4
CMF C36 H38 Br2 O2



CM 3

L7 ANSWER 2 OF 37 REGISTRY COPYRIGHT 2008 ACS on STN (Continued)
CRN 396123-43-6
CMF C49 H62 B2 O8

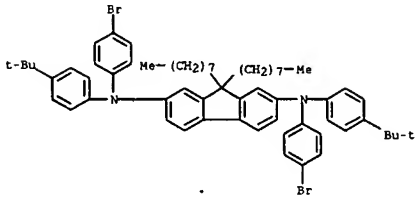


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L7 ANSWER 3 OF 37 REGISTRY COPYRIGHT 2008 ACS on STN
RN 882567-06-8 REGISTRY
ED Entered STN: 02 May 2006
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 4,7-bis(5-bromo-2-thienyl)-2,1,3-benzothiadiazole, 9-[3,4-bis(2-methylbutoxy)phenyl]-2,7-dibromo-9-(2,5-dimethylphenyl)-9H-fluorene, 2,2'-[[2-[(3,7-dimethyloctyl)oxy]-5-methoxy-1,4-phenylene]di-2,1-ethenediyl]bis[5-bromothiophene] and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)
MF (C61 H74 Br2 N2 . C49 H62 B2 O8 . C37 H40 Br2 O2 . C29 H34 Br2 O2 S2 . C14 H6 Br2 N2 S3)x
CI PMS
PCT Polyether, Polyether formed, Polyether, Polystyrene, Polyvinyl
SR CA
LC STN Files: CA, CAPLUS

CM 1

CRN 868703-33-7
CMF C61 H74 Br2 N2



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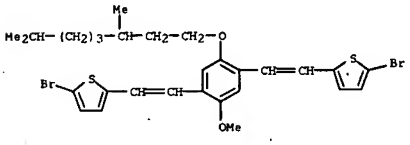
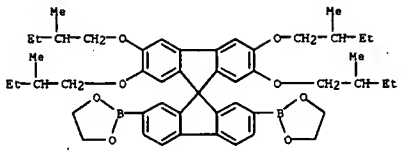
CRN 848892-54-6
CMF C29 H34 Br2 O2 S2



CM 3

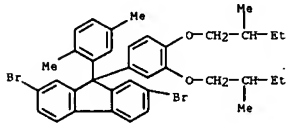
L7 ANSWER 3 OF 37 REGISTRY COPYRIGHT 2008 ACS on STN (Continued)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L7 ANSWER 3 OF 37 REGISTRY COPYRIGHT 2008 ACS on STN (Continued)
CRN 396123-43-6
CMF C49 H62 B2 O8



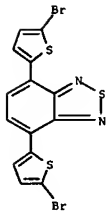
CM 4

CRN 396123-39-0
CMF C37 H40 Br2 O2



CM 5

CRN 288071-87-4
CMF C14 H6 Br2 N2 S3

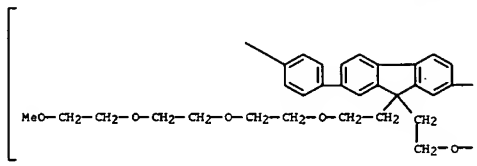


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

L7 ANSWER 4 OF 37 REGISTRY COPYRIGHT 2008 ACS on STN
RN 880487-40-1 REGISTRY
ED Entered STN: 14 Apr 2006
CN Poly[[(3,5-difluorophenyl)imino](9,9-dioctyl-9H-fluorene-2,7-diyl)[(3,5-difluorophenyl)imino]-1,4-phenylene[9,9-bis(3,6,9,12-tetraoxatridec-1-yl)-9H-fluorene-2,7-diyl]-1,4-phenylene] (9CI) (CA INDEX NAME)
MF (C84 H98 F4 N2 O8)n
CI PMS
PCT Polyamine
SR CA
LC STN Files: CA, CAPLUS

RELATED POLYMERS AVAILABLE WITH POLYLINK

PAGE 1-A



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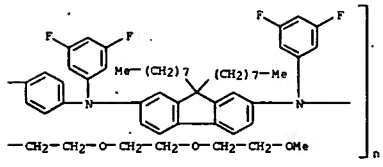
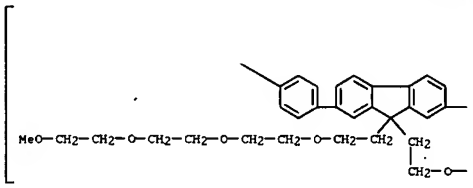


3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L7 ANSWER 5 OF 37 REGISTRY COPYRIGHT 2008 ACS on STN
RN 880487-39-8 REGISTRY
ED Entered STN: 14 Apr 2006
CN Poly[[(4-fluorophenyl)imino](9,9-dioctyl-9H-fluorene-2,7-diyl)[(4-fluorophenyl)imino]-1,4-phenylene[9,9-bis(3,6,9,12-tetraoxatridec-1-yl)-9H-fluorene-2,7-diyl]-1,4-phenylene] (9CI) (CA INDEX NAME)
MF (C84 H100 F2 N2 O8)n
CI PMS
PCT Polyamine
SR CA
LC STN Files: CA, CAPLUS

RELATED POLYMERS AVAILABLE WITH POLYLINK

PAGE 1-A



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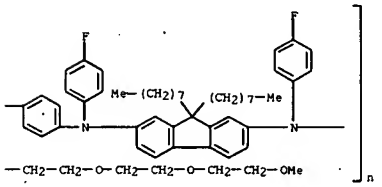
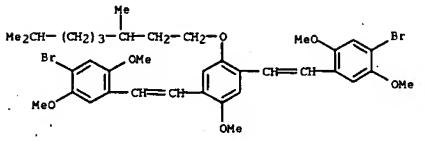


3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L7 ANSWER 6 OF 37 REGISTRY COPYRIGHT 2008 ACS on STN
RN 868703-47-3 REGISTRY
ED Entered STN: 23 Nov 2005
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 1,4-bis[2-(4-bromo-2,5-dimethoxyphenyl)ethenyl]-2-[(3,7-dimethyloctyl)oxy]-5-methoxybenzene, 9-[3,4-bis(2-methylbutoxy)phenyl]-2,7-dibromo-9-(2,5-dimethylphenyl)-9H-fluorene and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)
MF (C61 H74 Br2 N2 . C49 H62 B2 O8 . C37 H46 Br2 O6 . C37 H40 Br2 O2)x
CI PMS
PCT Polyether, Polyether formed, Polyother, Polystyrene
SR CA
LC STN Files: CA, CAPLUS

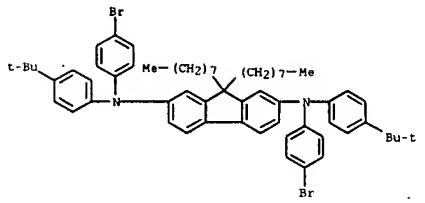
CM 1

CRN 868703-46-2
CMF C37 H46 Br2 O6



CM 2

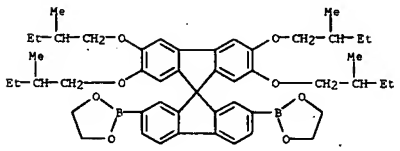
CRN 868703-33-7
CMF C61 H74 Br2 N2



CM 3

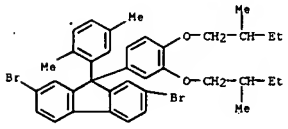
CRN 396123-43-6
CMF C49 H62 B2 O8

L7 ANSWER 6 OF 37 REGISTRY COPYRIGHT 2008 ACS on STN (Continued)



CM 4

CRN 396123-39-0
CMF C37 H40 Br2 O2

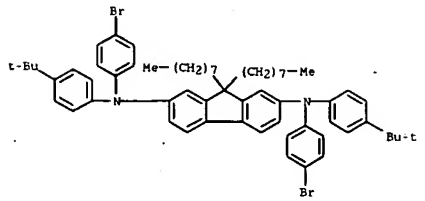


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L7 ANSWER 7 OF 37 REGISTRY COPYRIGHT 2008 ACS on STN
RN 868703-45-1 REGISTRY
ED Entered STN: 23 Nov 2005
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 2',7'-bis[2-(4-bromophenyl)ethenyl]-2,3,6,7-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene], 9-[3,4-bis(2-methylbutoxy)phenyl]-2,7-dibromo-9-(2,5-dimethylphenyl)-9H-fluorene and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)
MF (C61 H74 Br2 N2 . C61 H66 Br2 O4 . C49 H62 B2 O8 . C37 H40 Br2 O2)x
CI PMS
PCT Polyether, Polyether formed, Polyother, Polyvinyl
SR CA
LC STN Files: CA, CAPLUS

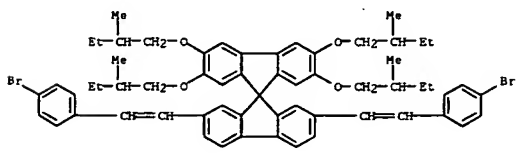
CM 1

CRN 868703-33-7
CMF C61 H74 Br2 N2



CM 2

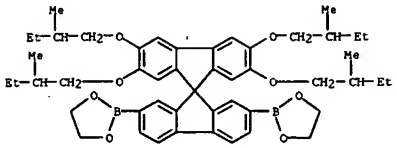
CRN 501434-76-0
CMF C61 H66 Br2 O4



CM 3

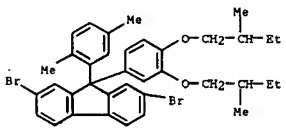
CRN 396123-43-6

L7 ANSWER 7 OF 37 REGISTRY COPYRIGHT 2008 ACS on STN (Continued)
CMF C49 H62 B2 O8



CM 4

CRN 396123-39-0
CMF C37 H40 Br2 O2

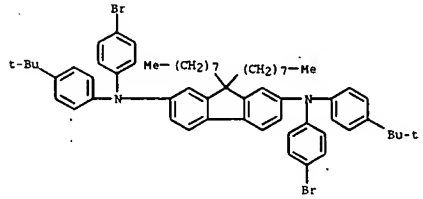


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L7 ANSWER 8 OF 37 REGISTRY COPYRIGHT 2008 ACS on STN
RN 868703-44-0 REGISTRY
ED Entered STN: 23 Nov 2005
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 9,10-dibromoanthracene, 2',7'-dibromo-2,3,6,7-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene] and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)
MF (C61 H74 Br2 N2 . C49 H62 B2 O8 . C45 H54 Br2 O4 . C14 H8 Br2)x
CI PMS
PCT Polyether, Polyether formed, Polyother
SR CA
LC STN Files: CA, CAPLUS

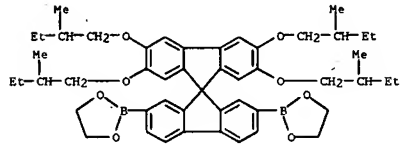
CM 1

CRN 868703-33-7
CMF C61 H74 Br2 N2



CM 2

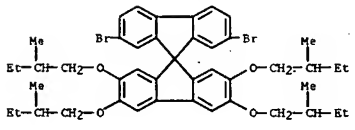
CRN 396123-43-6
CMF C49 H62 B2 O8



CM 3

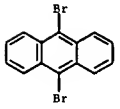
CRN 395059-23-1
CMF C45 H54 Br2 O4

L7 ANSWER 8 OF 37 REGISTRY COPYRIGHT 2008 ACS on STN (Continued)



CM 4

CRN 523-27-3
CMF C14 H8 Br2

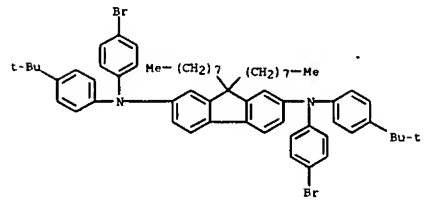


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L7 ANSWER 9 OF 37 REGISTRY COPYRIGHT 2008 ACS on STN
RN 868703-43-9 REGISTRY
ED Entered STN: 23 Nov 2005
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 9-[3,4-bis(2-methylbutoxy)phenyl]-2,7-dibromo-9-(2,5-dimethylphenyl)-9H-fluorene and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)
MF (C61 H74 Br2 N2 . C49 H62 B2 O8 . C37 H40 Br2 O2)x
CI PMS
PCT Polyether, Polyether formed, Polyother
SR CA
LC STN Files: CA, CAPLUS

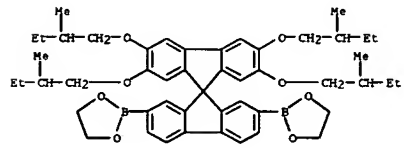
CM 1

CRN 868703-33-7
CMF C61 H74 Br2 N2



CM 2

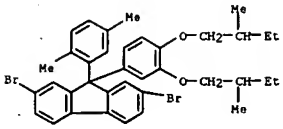
CRN 396123-43-6
CMF C49 H62 B2 O8



CM 3

CRN 396123-39-0
CMF C37 H40 Br2 O2

L7 ANSWER 9 OF 37 REGISTRY COPYRIGHT 2008 ACS on STN (Continued)

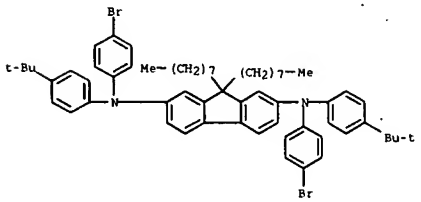


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L7 ANSWER 10 OF 37 REGISTRY COPYRIGHT 2008 ACS on STN
RN 868703-42-8 REGISTRY
ED Entered STN: 23 Nov 2005
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 2',7'-dibromo-2,3,6,7-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene] and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)
MF (C61 H74 Br2 N2 . C49 H62 B2 O8 . C45 H54 Br2 O4)x
CI PMS
PCT Polyether, Polyether formed, Polyother
SR CA
LC STN Files: CA, CAPLUS

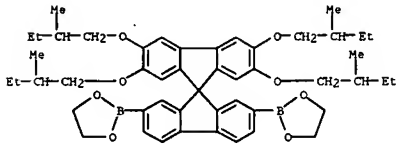
CM 1

CRN 868703-33-7
CMF C61 H74 Br2 N2



CM 2

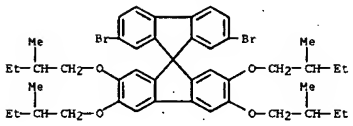
CRN 396123-43-6
CMF C49 H62 B2 O8



CM 3

CRN 395059-23-1
CMF C45 H54 Br2 O4

L7 ANSWER 10 OF 37 REGISTRY COPYRIGHT 2008 ACS on STN (Continued)

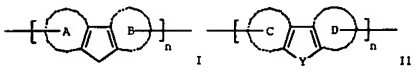


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L8 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:564481 CAPLUS
DOCUMENT NUMBER: 146:523130
TITLE: Polymers with good heat resistance and luminescent intensity for electroluminescence elements
INVENTOR(S): Fukushima, Daisuke; Tsubata, Yoshiaki; Anryu, Makoto
PATENT ASSIGNEE(S): Sumitomo Chemical Company, Limited, Japan
SOURCE: PCT Int. Appl., 117pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007058368	A1	20070524	WO 2006-JP323257	20061115
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
JP 2007162009	A	20070628	JP 2006-310009	20061116

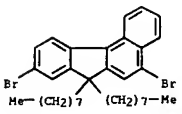
PRIORITY APPLN. INFO.: JP 2005-333759 A 20051118
GI



I II

AB Title polymers comprise ≥1 repeat unit {Ar2N(Ar1)ZN(Ar1)Ar2} and ≥1 repeat unit selected I and II, wherein Ar1 = aryl or univalent aromatic heterocyclic group; Ar2 = arylene or bivalent aromatic heterocyclic group; and Z = bivalent aromatic group having a fused ring structure; rings A; B = independently aromatic hydrocarbon ring (≥1 of the rings A and B = aromatic hydrocarbon ring in which ≥2 benzene rings are fused); Rw, Rx = independently hydrogen atom or alkyl; rings C, D = independently aromatic ring; Y = O, S, or OC(Rk)2; Rk = H or alkyl. Thus, 0.11 mol 9,10-dibromoanthracene and 0.22 mol N-(4-tert-butylphenyl)aniline were reacted in the presence of 0.27 mmol tris(benzylideneacetone)dipalladium and 9 mmol tri-tert-butylphosphine at 100°, brominated with N-bromosuccinimide to give N,N'-bis{4-(1,1-dimethylethyl)phenyl]-N,N'-bis(4-bromophenyl)-9,10-Anthracenediamine, 0.24 mmol of which was polymerized with 3.76 mmol 5,9-dibromo-7,7-dioctyl-7H-benzo[c]fluorene and 3.96 mmol 2,2'-(7,7-dioctyl-7H-benzo[c]fluorene-5,9-diyl)bis{4,4,5,5-tetramethyl-1,3,2-dioxaborolane] at 105° for 4.5 h in the presence of 2.7 mg palladium acetate, 29.6 mg tris(2-methoxyphenyl)phosphine, and 0.52 g Aliquat 336 to give a copolymer with Mw 2.3 + 105, fluorescence

L8 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

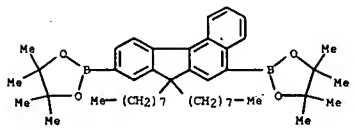


REFERENCE COUNT: 10. THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
intensity 7.1, and glass transition temp. 136°.
IT 936947-26-1P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polymers with good heat resistance and luminescent intensity for electroluminescence elements)
RN 936947-26-1 CAPLUS
CN 9H-Fluorene-2,7-diamine, N2,N7-bis(4-bromophenyl)-N2,N7-bis(4-methylphenyl)-9,9-dioctyl-, polymer with 5,9-dibromo-7,7-dioctyl-7H-benzo[c]fluorene and 2,2'-(7,7-dioctyl-7H-benzo[c]fluorene-5,9-diyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane] (CA INDEX NAME)

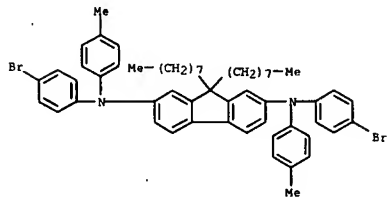
CM 1

CRN 854952-68-4
CMF C45 H66 B2 O4



CM 2

CRN 852535-44-5
CMF C55 H62 Br2 N2

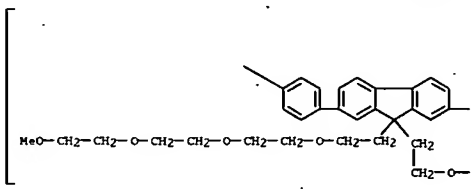


CM 3

CRN 794519-14-5
CMF C33 H42 Br2

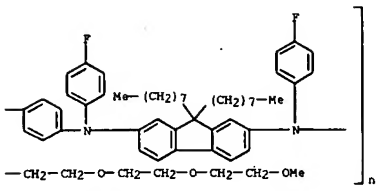
L8 ANSWER 2 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:887435 CAPLUS
DOCUMENT NUMBER: 147:12679
TITLE: Organic redox cascades in dye sensitized solar cells
AUTHOR(S): Holmes, Andrew B.; Jones, David J.; Schulte, Niels; Park, Taiho; Haque, Saif A.; Durrant, James R.
CORPORATE SOURCE: Bio21 Institute, The School of Chemistry, University of Melbourne, Parkville Vic., 3010, Australia
SOURCE: PMSE Preprints (2006), 95, 429-430
CODEN: PPMRA9; ISSN: 1550-6703
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English
AB A series of ion-chelating hole transport polymers was synthesized in which the polymer redox potentials have been adjusted by changes in substituents, for use in creating organic redox cascades in dye sensitized solar cells. The interfacial charge recombination kinetics of the polymers were evaluated. Results demonstrated that the interfacial recombination halftimes of the polymer devices can be controlled by adjusting the energy levels of the polymers used in the device by the construction of a redox cascade.
IT 880487-39-8 880487-40-1
RL: TEM (Technical or engineered material use); USES (Uses)
(organic redox cascades in dye sensitized solar cells)
RN 880487-39-8 CAPLUS
CN Poly[{(4-fluorophenyl)imino](9,9-dioctyl-9H-fluorene-2,7-diyl)[(4-fluorophenyl)imino]-1,4-phenylene[9,9-bis(3,6,9,12-tetraoxatridec-1-yl)-9H-fluorene-2,7-diyl]-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



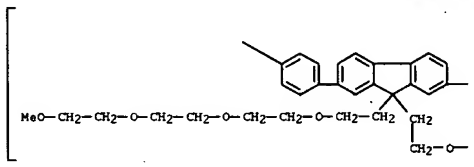
L8 ANSWER 2 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

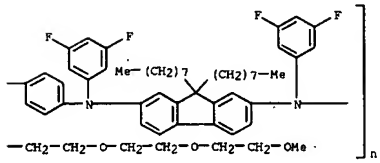


RN 880487-40-1 CAPLUS
CN Poly[[(3,5-difluorophenyl)imino](9,9-dioctyl-9H-fluorene-2,7-diyl)[(3,5-difluorophenyl)imino]-1,4-phenylene[9,9-bis(3,6,9,12-tetraoxatridec-1-yl)-9H-fluorene-2,7-diyl]-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



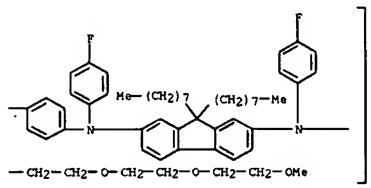
PAGE 1-B



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

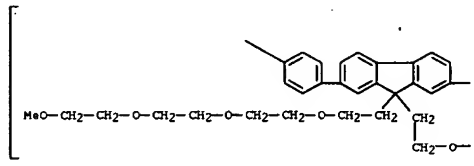
L8 ANSWER 3 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

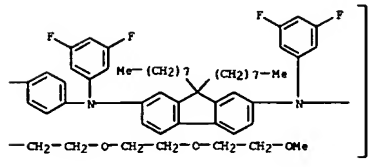


RN 880487-40-1 CAPLUS
CN Poly[[(3,5-difluorophenyl)imino](9,9-dioctyl-9H-fluorene-2,7-diyl)[(3,5-difluorophenyl)imino]-1,4-phenylene[9,9-bis(3,6,9,12-tetraoxatridec-1-yl)-9H-fluorene-2,7-diyl]-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L8 ANSWER 3 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN

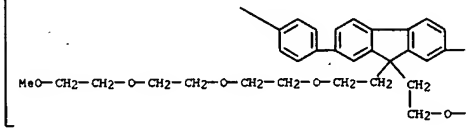
ACCESSION NUMBER: 2006:436710 CAPLUS
DOCUMENT NUMBER: 145:11216
TITLE: Interface engineering for solid-state dye-sensitized nanocrystalline solar cells: the use of an organic redox cascade. [Erratum to document cited in CA144:334160]
AUTHOR(S): Hirata, Narukuni; Kroeze, Jessica E.; Park, Taiho; Jones, David; Haque, Saif A.; Holmes, Andrew B.; Durrant, James R.
CORPORATE SOURCE: Centre for Electronic Materials and Devices, Department of Chemistry, Imperial College London, London, SW7 2AZ, UK
SOURCE: Chemical Communications (Cambridge, United Kingdom) (2006), (6), 677
CODEN: CHCOFS; ISSN: 1359-7345
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The structural formula in Figure 3 on page 536 was incorrect. The correct structure is given.

IT 880487-39-8 880487-40-1
RL: DEV (Device component use); USES (Uses)
(organic redox cascade in interface engineering for solid-state dye-sensitized nanocryst. solar cells (Erratum))

RN 880487-39-8 CAPLUS
CN Poly[[(4-fluorophenyl)imino](9,9-dioctyl-9H-fluorene-2,7-diyl)[(4-fluorophenyl)imino]-1,4-phenylene[9,9-bis(3,6,9,12-tetraoxatridec-1-yl)-9H-fluorene-2,7-diyl]-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



L8 ANSWER 4 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:343128 CAPLUS
DOCUMENT NUMBER: 144:391623
TITLE: Electronic devices containing organic semiconductors with low halogen content
INVENTOR(S): Spreitzer, Hubert; Falcou, Aurelie; Scheurich, Rene; Schulte, Niels; Buesing, Arne; Stoessel, Philipp
PATENT ASSIGNEE(S): Merck Patent GmbH, Germany
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006037458	A1	20060413	WO 2005-EP10112	20050920
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1794218	A1	20070613	EP 2005-784377	20050920
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
PRIORITY APPLN. INFO.:			EP 2004-23475	A 20041001
			WO 2005-EP10112	W 20050920

AB The invention relates to electronic devices containing organic semiconductors with a halogen content < 20 ppm. As a result, the service life and efficiency of the corresponding electronic devices is increased, and such materials are more suitable for use in organic electronic devices than materials having higher halogen content. In one embodiment, low mol. weight organic or polymeric semiconductors are obtained by coupling reactions involving reactive halogens, followed by optional isolation of the semiconductors, and treatment with a reducing agent until the halogen content is < 20 ppm.

IT 882567-06-8DP, ditolylaminophenyl- and dibutoxyphenyl-terminated 882567-07-9DP, ditolylaminophenyl- and dibutoxyphenyl-terminated
RL: DEV (Device component use); IMF (Industrial manufacture); PUR (Purification or recovery); PREP (Preparation); USES (Uses)
(electronic devices containing organic semiconductors with low halogen content)

RN 882567-06-8 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 4,7-bis(5-bromo-2-thienyl)-2,1,3-benzothiadiazole, 9-[3,4-bis(2-methylbutoxy)phenyl]-2,7-dibromo-9-(2,5-dimethylphenyl)-9H-fluorene, 2,2'-[[2-[(3,7-dimethyloctyl)oxy]-5-methoxy-1,4-phenylene]di-2,1-ethenediyl]bis[5-bromothiophene] and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)

CM 1

CRN 868703-33-7
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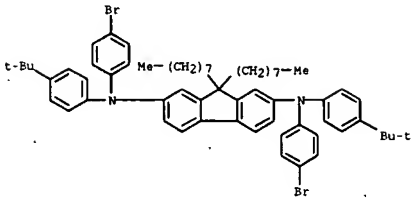

CM 2

CRN 848892-54-6
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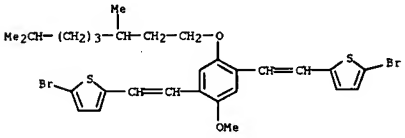
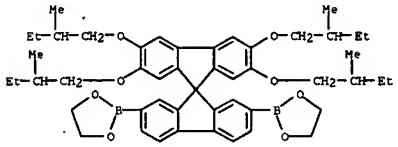


CM 3

CRN 396123-43-6
CMF C49 H62 B2 O8



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CRN 396123-39-0
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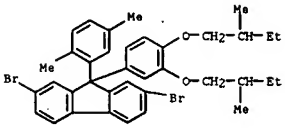

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CRN 288071-87-4
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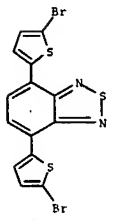
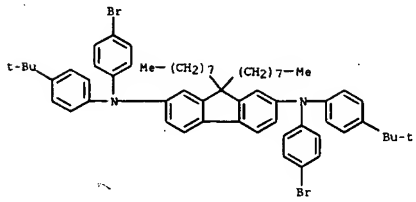


RN 882567-07-9 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 2,7-dibromo-9,10-bis[4-(1,1-dimethylethyl)phenyl]-9,10-dihydro-9,10-dimethoxyphenanthrene and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)

CM 1

CRN 868703-33-7
CMF C61 H74 Br2 N2



CM 2

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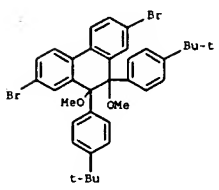
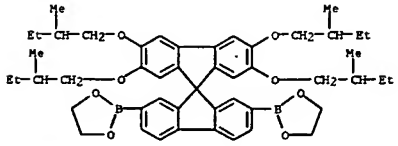


CM 3

CRN 396123-43-6
CMF C49 H62 B2 O8



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN

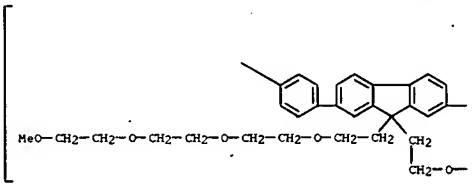
ACCESSION NUMBER: 2006:82021 CAPLUS
DOCUMENT NUMBER: 144:334160
TITLE: Interface engineering for solid-state dye-sensitized nanocrystalline solar cells: the use of an organic redox cascade
AUTHOR(S): Hirata, Narukuni; Kroeze, Jessica E.; Park, Taiho; Jones, David; Haque, Saif A.; Holmes, Andrew B.; Durrant, James R.
CORPORATE SOURCE: Centre for Electronic Materials and Devices, Department of Chemistry, Imperial College London, London, SW7 2AZ, UK
SOURCE: Chemical Communications (Cambridge, United Kingdom) (2006), (5), 535-537
CODEN: CHCOFS; ISSN: 1359-7345
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The formation of a charge transfer cascade at a nanostructured TiO2/dye/polymer/mol. hole transport multilayer interface is demonstrated. The rate of charge recombination at this interface is decreased when the ionization potential of the polymer layer exceeds that of the mol. hole transport layer.

IT 880487-39-8 880487-40-1
RL: DEV (Device component use); USES (Uses)
(organic redox cascade in interface engineering for solid-state dye-sensitized nanocryst. solar cells)

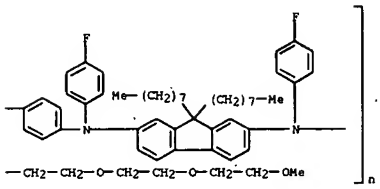
RN 880487-39-8 CAPLUS
CN Poly[[(4-fluorophenyl)imino](9,9-dioctyl-9H-fluorene-2,7-diyl)[(4-fluorophenyl)imino]-1,4-phenylene[9,9-bis(3,6,9,12-tetraoxatridec-1-yl)-9H-fluorene-2,7-diyl]-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



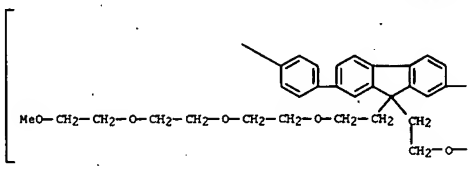
L8 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

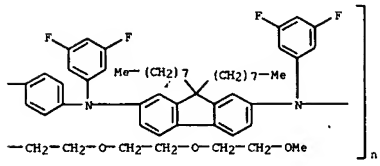


RN 880487-40-1 CAPLUS
CN Poly[[(3,5-difluorophenyl)imino](9,9-dioctyl-9H-fluorene-2,7-diyl)[(3,5-difluorophenyl)imino]-1,4-phenylene[9,9-bis(3,6,9,12-tetraoxatridec-1-yl)-9H-fluorene-2,7-diyl]-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1170527 CAPLUS
DOCUMENT NUMBER: 143:441496
TITLE: Polymers comprising planar arylamine or arylarsine or arylphosphine units and bifunctional monomers for preparing them and their use in electronic devices
INVENTOR(S): Parham, Amir; Heun, Susanne; Falcou, Aurelie; Buesing, Arne; Pan, Junyou; Becker, Heinrich
PATENT ASSIGNEE(S): Covion Organic Semiconductors GmbH, Germany
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005104263	A1	20051103	WO 2005-EP4447	20050426
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 102004020299	A1	20051201	DE 2004-102004020299	20040426
EP 1741148	A1	20070110	EP 2005-741399	20050426
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR				
CN 1947274	A	20070411	CN 2005-80013203	20050426
JP 2007534814	T	20071129	JP 2007-509954	20050426
PRIORITY APPLN. INFO.:			DE 2004-102004020299A	20040426
			WO 2005-EP4447 W	20050426

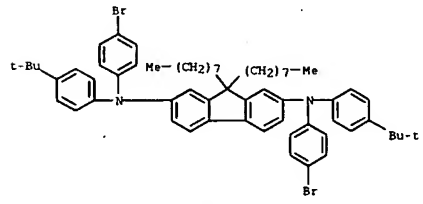
AB Conjugated or partly conjugated polymers are described which comprise ≥0.1 mol % of a repeating unit described by the general formula Ar1-A(Ar4)-[X-A(Ar2)]n-X-A(Ar3)-Ar5 (A are independently selected at each occurrence from N, P, and As; X are independently selected at each occurrence from (un)substituted bivalent planar C6-40 conjugated systems that include ≥2 arylene groups; Ar1-5 = (un)substituted (hetero)aromatic C2-40 ring systems with the restriction that Ar1 and Ar5 are not condensed ring systems when they are not directly attached to the polymer backbone, the unit being attached to the polymer backbone by ≥1 of Ar1 and Ar5; and n = 0, 1, or 2) (excepting certain specified arylene vinylene-unit containing polymers). Bifunctional monomers from which the repeating units may be derived are also described. The polymers may incorporate addnl. repeating units which may affect the morphol. or emission characteristics of the polymer, which can increase the electron-injection, hole-injection, electron-transporting, or hole-transporting capabilities of the polymer, which can emit light from a triplet state, and/or which can facilitate energy transfer from a singlet to a triplet state. The use of the polymers or of blends containing them in electronic devices (e.g., polymer organic light-emitting diodes, organic FETs,

L8 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

org. integrated circuits, org. thin-film transistors, org. solar cells, org. field quenching devices, and org. laser diodes) is also described.

IT 868703-33-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monomer; polymers comprising planar arylamine or arylarsine or arylphosphine units and bifunctional monomers for preparing them and their use in electronic devices)

RN 868703-33-7 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl- (9CI) (CA INDEX NAME)

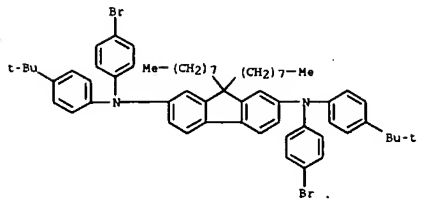


IT 868703-42-8P 868703-43-9P 868703-44-0P
868703-45-1P 868703-47-3P
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(polymers comprising planar arylamine or arylarsine or arylphosphine units and bifunctional monomers for preparing them and their use in electronic devices)

RN 868703-42-8 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 2',7'-dibromo-2,3,6,7-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene] and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)

CM 1

CRN 868703-33-7
CMF C61 H74 Br2 N2



CM 2

CRN 396123-43-6
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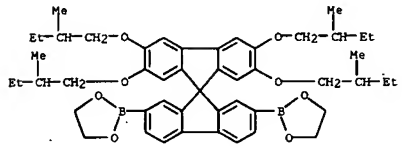

CM 3

CRN 395059-23-1
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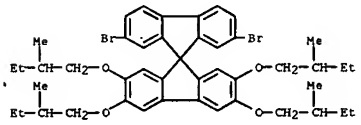

RN 868703-43-9 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 9-[3,4-bis(2-methylbutoxy)phenyl]-2,7-dibromo-9-(2,5-dimethylphenyl)-9H-fluorene and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)

CM 1

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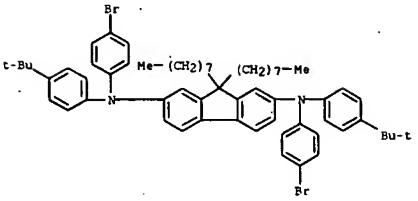

CM 2

CRN 396123-43-6
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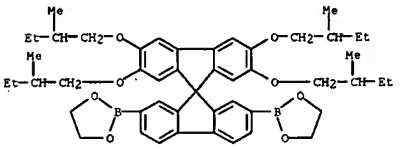

CM 3

CRN 396123-39-0
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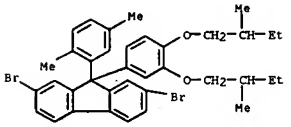

RN 868703-44-0 CAPLUS

CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 9,10-dibromoanthracene, 2',7'-dibromo-2,3,6,7-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene] and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)

CM 1

CRN 868703-33-7
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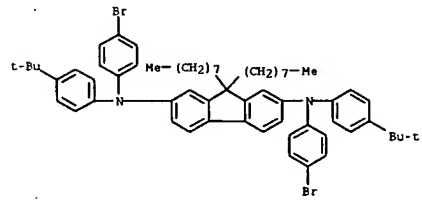

CM 2

CRN 396123-43-6
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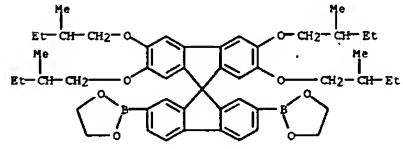

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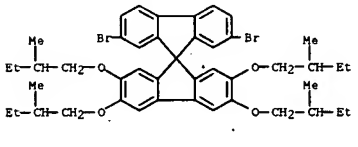

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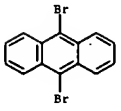
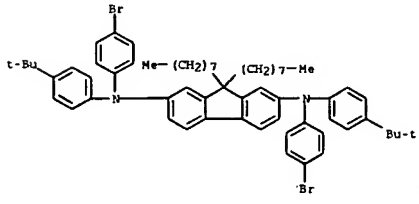


RN 868703-45-1 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 2',7'-bis[2-(4-bromophenyl)ethenyl]-2,3,6,7-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene], 9-[3,4-bis(2-methylbutoxy)phenyl]-2,7-dibromo-9-(2,5-dimethylphenyl)-9H-fluorene and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)

CM 1

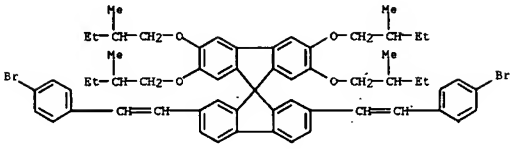
CRN 868703-33-7
CMF C61 H74 Br2 N2



CM 2

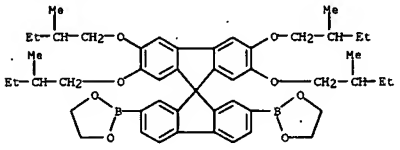
L8 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

CRN 501434-76-0
CMF C61 H66 Br2 O4



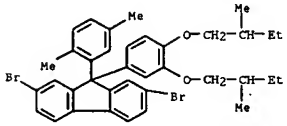
CM 3

CRN 396123-43-6
CMF C49 H62 B2 O8



CM 4

CRN 396123-39-0
CMF C37 H40 Br2 O2

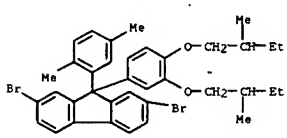


RN 868703-47-3 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-9,9-dioctyl-, polymer with 1,4-bis[2-(4-bromo-2,5-dimethoxyphenyl)ethenyl]-2-[(3,7-dimethyloctyl)oxy]-5-methoxybenzene, 9-[3,4-bis(2-methylbutoxy)phenyl]-2,7-dibromo-9-(2,5-dimethylphenyl)-9H-fluorene and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-9,9'-spirobi[9H-

L8 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

CM 4

CRN 396123-39-0
CMF C37 H40 Br2 O2

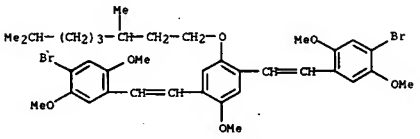


REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)

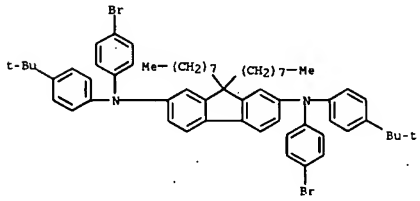
CM 1

CRN 868703-46-2
CMF C37 H46 Br2 O6



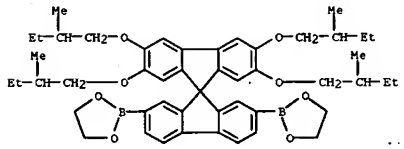
CM 2

CRN 868703-33-7
CMF C61 H74 Br2 N2



CM 3

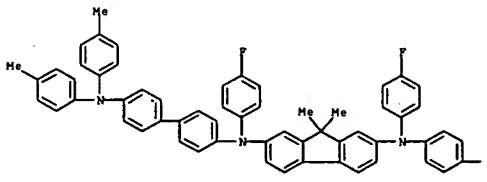
CRN 396123-43-6
CMF C49 H62 B2 O8



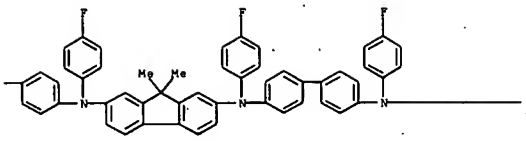
L8 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:695800 CAPLUS
DOCUMENT NUMBER: 143:183088
TITLE: Electrophotographic photoreceptors with good abrasion and scratch resistance, process cartridges, and electrophotographic apparatus
INVENTOR(S): Ogaki, Harunobu; Tanaka, Takakazu; Kako, Kenichi
PATENT ASSIGNEE(S): Canon Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 50 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005208111	A	20050804	JP 2004-11685	20040120
PRIORITY APPLN. INFO.:			JP 2004-11685	20040120

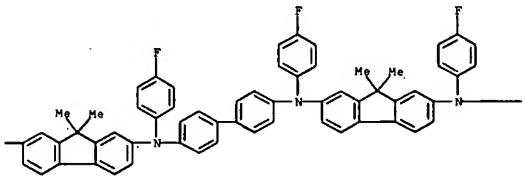
OTHER SOURCE(S): MARPAT 143:183088
AB The photoreceptors have (A) charge generation layers containing charge generation materials and specific aromatic polyamine charge transport materials, and (B) charge transport layers containing 90-100% specific aromatic polyamine charge transport materials with mol. weight 1500-4000 in this order on supports. The electrophotog. apparatus shows good printing durability.
IT 861249-24-3
RL: DEV (Device component use); USES (Uses)
(electrophotog. photoreceptors containing specific aromatic polyamine charge transport materials in charge generation layers and charge transport layers)
RN 861249-24-3 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N''-[1,1'-biphenyl]-4,4'-diylbis[N'-[4'-[[7-[[4'-[bis(4-methylphenyl)amino][1,1'-biphenyl]-4-yl](4-fluorophenyl)amino]-9,9-dimethyl-9H-fluoren-2-yl](4-fluorophenyl)amino][1,1'-biphenyl]-4-yl]-N,N'-bis(4-fluorophenyl)-9,9-dimethyl- (9CI) (CA INDEX NAME)



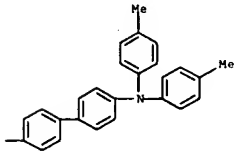
PAGE 1-B



PAGE 1-C



PAGE 1-D



ACCESSION NUMBER: 2005:472106 CAPLUS
DOCUMENT NUMBER: 143:8902
TITLE: Halogenated bisdiarylaminopolycyclic aromatic compound-based polymers for light emitting diode devices
INVENTOR(S): Hudack, Michelle L.; Yu, Wanglin; Inbasekaran, Michael; Wu, Weishi; Welsh, Dean M.; O'Brien, James J.
PATENT ASSIGNEE(S): Dow Global Technologies Inc., USA
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005049546	A1	20050602	WO 2004-US36707	20041103
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
GB 2422838	A	20060809	GB 2006-9500	20041103
DE 112004002193	T5	20061012	DE 2004-112004002193	20041103
CN 1894199	A	20070110	CN 2004-80033613	20041103
JP 2007512249	T	20070517	JP 2006-539638	20041103
US 2007126345	A1	20070607	US 2006-579215	20060922

PRIORITY APPLN. INFO.: US 2003-520070P P 20031114
WO 2004-US36707 W 20041103

OTHER SOURCE(S): MARPAT 143:8902

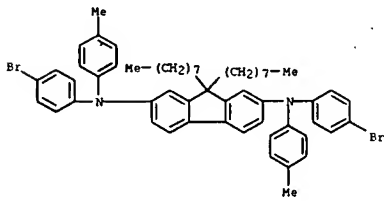
AB Title polymers are prepared from halogenated compds. ArAr'NZNArAr', wherein Ar, Ar' = independently (un)substituted aryl groups and Z = polycyclic arylene group (≥1 of the Ar' groups = haloaryl group). Devices using polymers prepared from the halogenated compds. exhibit improved performance and longer lifetime, presumably as a result of the presence of the geometrically constrained diarylaminopolycyclic aromatic groups in the polymer backbone. Thus, 2,7-dibromo-9,9-dioctylfluorene 27.4, tri-o-tolylphosphine 2.435, and 4-methyldiphenylamine 22.91 g were refluxed in the presence of 0.90 g palladium acetate, 12.5 of the resulting 2,7-bis(4-methyldiphenylamino)-9,9-dioctylfluorene was treated with 5.91 g N-bromosuccinimide to give 2,7-bis(4-methyl-4'-bromodiphenylamino)-9,9-dioctylfluorene, 0.73 g of which was polymerized with 2.85 g 2,7-bis(1,3,2-dioxaborolan-2-yl)-9,9-dioctylfluorene and 3.06 g 2,7-dibromo-9,9-bis(4-hexyloxyphenyl)fluorene in the presence of 0.91 g Aliquat 336 (phase transfer agent), 5 mg trans-dichlorobis(triphenylphosphine)palladium, and 2 M sodium carbonate for 4.8 h, and 0.22 g Ph boronic acid was added therein and stirred to give a copolymer with Mn 103,867 and polydispersity 2.92, which was fabricated into a blue light emitting device, showing average brightness 200 cd/m2 at 4.43 V and average light efficiency 2.254 cd/A.

IT 852535-44-5P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(monomer; prepn. of halogenated bisdiarylaminopolycyclic arom. compd.-based polymers for light emitting diode devices)

RN 852535-44-5 CAPLUS

CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-methylphenyl)-9,9-dioctyl- (9CI) (CA INDEX NAME)



IT 852535-49-0P

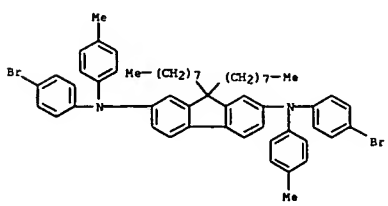
RL: DEV (Device component use); IMF (Industrial manufacture); PRP (Properties); PUR (Purification or recovery); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of halogenated bisdiarylaminopolycyclic aromatic compound-based polymers for light emitting diode devices)

RN 852535-49-0 CAPLUS

CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-methylphenyl)-9,9-dioctyl-, polymer with 2,7-dibromo-9,9-bis(4-(hexyloxy)phenyl]-9H-fluorene and 2,2'-(9,9-dioctyl-9H-fluorene-2,7-diyl)bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)

CM 1

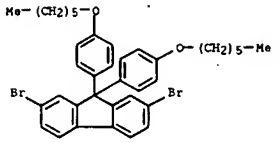
CRN 852535-44-5
CMF C55 H62 Br2 N2



L8 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

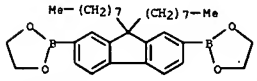
CM 2

CRN 690994-34-4
CMF C37 H40 Br2 O2



CM 3

CRN 210347-49-2
CMF C33 H48 B2 O4



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:474336 CAPLUS
DOCUMENT NUMBER: 141:334740
TITLE: Interface engineering for solid-state dye-sensitized nanocrystalline solar cells: The use of ion-solvating hole-transporting polymers
AUTHOR(S): Haque, Saif A.; Park, Taiho; Xu, Cigang; Koops, Sara; Schulte, Niels; Potter, Robert J.; Holmes, Andrew B.; Durrant, James R.
CORPORATE SOURCE: Centre for Electronic Materials and Devices, Department of Chemistry, Imperial College of Science Technology and Medicine, London, SW7 2AZ, UK
SOURCE: Advanced Functional Materials (2004), 14(5), 435-440
CODEN: AFMDC6; ISSN: 1616-301X
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The control of interfacial charge transfer is central to the design of photovoltaic devices. This charge transfer is strongly dependent upon the local chemical environment at each interface. The authors report a methodol.
for the fabrication of a novel nanostructured multicomponent film, employing a dual-function supramol. organic semiconductor to allow mol.-level
control of the local chemical composition at a nanostructured inorg./organic semiconductor heterojunction. The multicomponent film comprises a lithium ion doped dual-functional hole-transporting material (Li+-DFHTM), sandwiched between a dye-sensitized nanocryst. TiO2 film and a mono-functional organic hole-transporting material (MFHTM). The DFHTM consists of a conjugated organic semiconductor with ion supporting side chains, designed to allow both electronic and ionic charge transport properties. The Li+-DFHTM layers provide a new and versatile way to control the interface electrostatics, and consequently the charge transfer, at a nanostructured dye-sensitized inorg./organic semiconductor heterojunction.

IT 771563-21-4P
RL: DEV (Device component use); PRP (Properties); PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(use of ion-solvating hole-transporting polymers of interface engineering for solid-state dye-sensitized nanocryst. solar cells:)

RN 771563-21-4 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-methoxyphenyl)-9,9-dioctyl-, polymer with 2,2'-[9,9-bis(3,6,9,12-tetraoxatridec-1-yl)-9H-fluorene-2,7-diyl]bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)

CM 1

CRN 771563-20-3
CMF C43 H68 B2 O12

L8 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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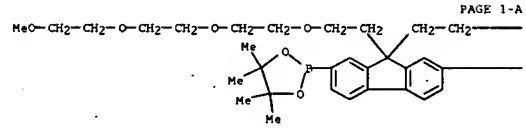
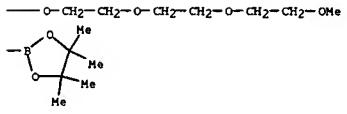
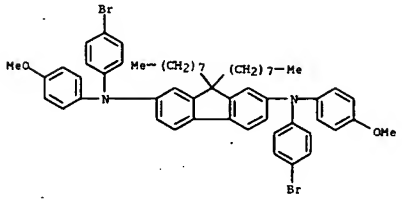


PAGE 1-B



CM 2

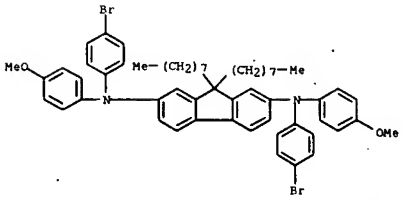
CRN 771563-19-0
CMF C55 H62 Br2 N2 O2



IT 771563-19-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(use of ion-solvating hole-transporting polymers of interface engineering for solid-state dye-sensitized nanocryst. solar cells:)

RN 771563-19-0 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-methoxyphenyl)-9,9-dioctyl- (9CI) (CA INDEX NAME)

L8 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:181887 CAPLUS
DOCUMENT NUMBER: 140:225769
TITLE: Electrophotographic photosensitive member, process cartridge and electrophotographic apparatus
INVENTOR(S): Tanaka, Takakazu; Takaya, Itaru; Ishiduka, Yuka; Ogaki, Harunobu; Kaku, Kenichi
PATENT ASSIGNEE(S): Canon Kabushiki Kaisha, Japan
SOURCE: Eur. Pat. Appl., 42 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1394617	A2	20040303	EP 2003-19487	20030828
EP 1394617	A3	20050105		
EP 1394617	B1	20061213		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2004109999	A	20040408	JP 2003-297680	20030821
US 2005100805	A1	20050512	US 2003-649679	20030828
US 6994941	B2	20060207		
CN 1495542	A	20040512	CN 2003-156121	20030829
US 2005208402	A1	20050922	US 2005-129412	20050516

PRIORITY APPLN. INFO.: JP 2002-253631 A 20020830
JP 2003-297680 A 20030821
US 2003-649679 A3 20030828

OTHER SOURCE(S): MARPAT 140:225769

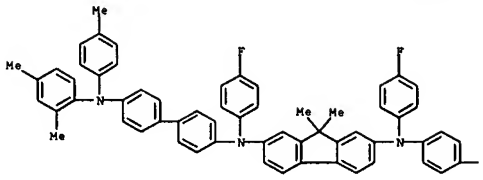
AB An electrophotog. photosensitive member is provided having a support and a photosensitive layer provided on the support and containing at least one kind of charge-transporting material which has a specific structure with a mol. weight of 1,500-4,000, and is held in a proportion of from 90-100% based on the total weight of the charge-transporting material.

IT 666176-05-2
RL: TEM (Technical or engineered material use); USES (Uses)
(charge-transporting material; electrophotog. photosensitive member, process cartridge and electrophotog. apparatus containing)

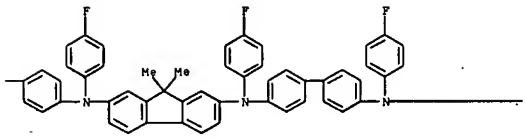
RN 666176-05-2 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N''-[1,1'-biphenyl]-4,4'-diylbis[N'-[4'-[[7-[[4'-[(2,4-dimethylphenyl)(4-methylphenyl)amino][1,1'-biphenyl]-4-yl](4-fluorophenyl)amino]-9,9-dimethyl-9H-fluoren-2-yl](4-fluorophenyl)amino][1,1'-biphenyl]-4-yl]-N,N'-bis(4-fluorophenyl)-9,9-dimethyl- (9CI) (CA INDEX NAME)

L8 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

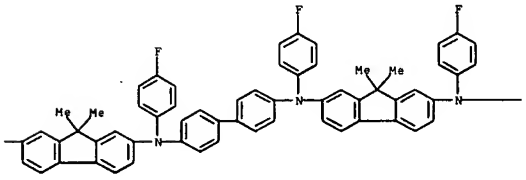
PAGE 1-A



PAGE 1-B

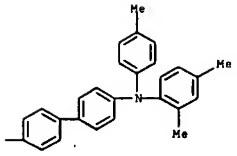


PAGE 1-C



L8 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-D



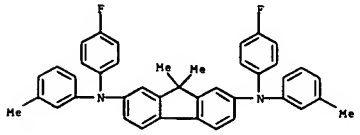
L8 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:172630 CAPLUS
DOCUMENT NUMBER: 141:372425
TITLE: Organic light-emitting diodes based on arylamine molecules and polymers with a fluorene core
AUTHOR(S): Domercq, Benoit; Hreha, Richard D.; Haldi, Andreas; Barlow, Stephen; George, Candace P.; Marder, Seth R.; Malagoli, Massimo; Bredas, Jean-Luc; Kippelen, Bernard
CORPORATE SOURCE: Optical Sciences Ctr., Univ. of Arizona, Tucson, AZ, 85721, USA
SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (2004), 5214(Organic Light-Emitting Materials and Devices VII), 225-232
CODEN: PSISDG; ISSN: 0277-786X
PUBLISHER: SPIE-The International Society for Optical Engineering
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Soluble arylamine-based hole transporting mols. with a fluorene core and with various ionization potentials were synthesized. The transport properties of these mols. doped into polystyrene were measured by time-of-flight expts. and compared to those of analogous compds. with a biphenyl core (TPD). Reorganization energies between the neutral mols. and their cations were calculated using d. functional theory. The effects of bond length and geometry relaxations on the overall reorganization energy in these two classes of mols. are discussed. Mols. from both classes were doped into polystyrene and used as hole-transport layers (HTLs) in multi-layer light-emitting diodes with the structure ITO/HTL/AlQ3/Mg:Ag (ITO = In Sn oxide, AlQ3 = tris(8-hydroxyquinolinato)aluminum). The electroluminescent properties and lifetime measurements at constant current were evaluated. Significant variations in lifetime when using different substituents were observed

IT 677350-81-1
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(organic light-emitting diodes based on arylamine mols. and polymers with fluorene core)

RN 677350-81-1 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-fluorophenyl)-9,9-dimethyl-N,N'-bis(3-methylphenyl)- (9CI) (CA INDEX NAME)



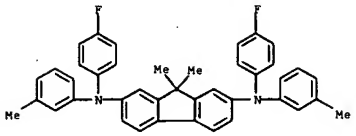
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:15356 CAPLUS
DOCUMENT NUMBER: 140:320941
TITLE: 2,7-bis(diarylamino)-9,9-dimethylfluorenes as hole-transport materials for organic light-emitting diodes
AUTHOR(S): Hreha, Richard D.; George, Candace P.; Haldi, Andreas; Domercq, Benoit; Malagoli, Massimo; Barlow, Stephen; Bredas, Jean-luc; Kippelen, Bernard; Marder, Seth R.
CORPORATE SOURCE: Department of Chemistry, University of Arizona, Tucson, AZ, 85721, USA
SOURCE: Advanced Functional Materials (2003), 13(12), 967-973
CODEN: AFMDC6; ISSN: 1616-301X
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 140:320941

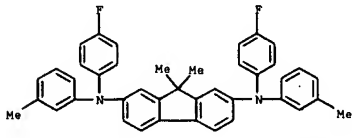
AB 2,7-Bis(p-methoxyphenyl-m'-tolylamino)-9,9-dimethylfluorene (1'), 2,7-bis(phenyl-m'-tolylamino)-9,9-dimethylfluorene (2') and 2,7-bis(p-fluorophenyl-m'-tolylamino)-9,9-dimethylfluorene (3') have been synthesized using the palladium-catalyzed reaction of the appropriate diarylamines with 2,7-dibromo-9,9-dimethylfluorene. These mols. have glass-transition temps. 15-20°C higher than those for their biphenyl-bridged analogs, and are 0.11-0.14 V more readily oxidized. Fluorescence spectra and fluorescence quantum yields for dimethylfluorene-bridged and biphenyl-bridged species are similar, but the peaks of the absorption spectra of 1'-3' are considerably red-shifted relative to those of their biphenyl-bridged analogs. Time-of-flight hole mobilities of 1'-3'/polystyrene blends are in a similar range to those of the biphenyl-bridged analogs. Anal. according to the disorder formalism yields parameters rather similar to those for the biphenyl species, but with somewhat lower zero-field mobility values. D. functional theory (DFT) calcns. suggest that the enforced planarization of the fluorene bridge leads to a slightly larger reorganization energy for the neutral/cation electron-exchange reaction than in the biphenyl-bridged system. Organic light-emitting diodes have been fabricated using 1'-3'/polystyrene blends as the hole-transport layer and tris(8-hydroxy quinoline)aluminum as the electron-transport layer and lumophore. Device performance shows a correlation with the ionization potential of the amine materials paralleling that seen in biphenyl-based systems, and fluorene species show similar performance to biphenyl species with comparable ionization potential.

IT 677350-81-1P
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
(polystyrene doped with; 2,7-bis(diarylamino)-9,9-dimethylfluorenes as hole-transport materials for organic light-emitting diodes)
RN 677350-81-1 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-fluorophenyl)-9,9-dimethyl-N,N'-bis(3-methylphenyl)- (9CI) (CA INDEX NAME)

L8 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



IT 677350-84-4
RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)
(redox couple; 2,7-bis(diarylamino)-9,9-dimethylfluorenes as hole-transport materials for organic light-emitting diodes)
RN 677350-84-4 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-fluorophenyl)-9,9-dimethyl-N,N'-bis(3-methylphenyl)-, radical ion(1+) (9CI) (CA INDEX NAME)

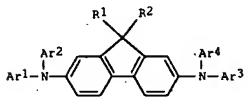


REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:874842 CAPLUS
DOCUMENT NUMBER: 139:371628
TITLE: Luminescent devices employing a triarylamine compound
INVENTOR(S): Senoo, Akihiro; Hashimoto, Yuichi; Ueno, Kazunori; Mashimo, Seiji; Urakawa, Shinichi
PATENT ASSIGNEE(S): Canon Kabushiki Kaisha, Japan
SOURCE: U.S. Pat. Appl. Publ., 37 pp., Cont.-in-part of U.S. Ser. No. 299,632.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003207153	A1	20031106	US 2003-348990	20030123
US 6833200	B2	20041221		
US 2005025997	A1	20050203	US 2004-921918	20040820
PRIORITY APPLN. INFO.:			JP 1998-132636	A 19980428
			US 1999-299632	B2 19990427
			US 2003-348990	A3 20030123

OTHER SOURCE(S): MARPAT 139:371628
GI

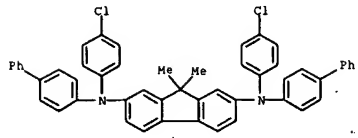


I

AB Luminescent devices are described which comprise a pair of electrodes and a luminescent layer disposed between the electrodes and comprising a compound represented by the general formula (I) where R1 and R2 are each independently a H atom, a halogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkoxy group, or a substituted or unsubstituted aryl group; Ar1-4 are each a substituted or unsubstituted aryl or heterocyclic group, which may be the same or different from each other; both Ar1 and Ar3 are fused aromatic rings; ≥1 of R1 and R2 is a halogen, a substituted or unsubstituted alkyl group, or a substituted or unsubstituted alkoxy group; and ≥1 of R1 and R2 is not H.

IT 248584-71-6
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(electroluminescent devices employing triarylamine compound)
RN 248584-71-6 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis([1,1'-biphenyl]-4-yl)-N,N'-bis(4-chlorophenyl)-9,9-dimethyl- (9CI) (CA INDEX NAME)

L8 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:868627 CAPLUS
DOCUMENT NUMBER: 139:371790
TITLE: Electrophotographic photoreceptor containing charge-transporting polymer and low molecular weight substance in photosensitive layer, process cartridge, and electrophotographic apparatus
INVENTOR(S): Nakajima, Yuka; Tanaka, Takakazu; Ogaki, Harunobu
PATENT ASSIGNEE(S): Canon Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

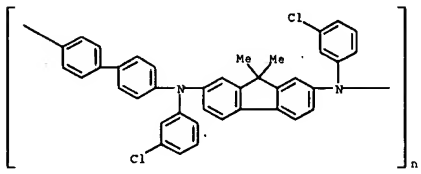
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003316044	A	20031106	JP 2002-126263	20020426
PRIORITY APPLN. INFO.:			JP 2002-126263	20020426

OTHER SOURCE(S): MARPAT 139:371790

AB The electrophotog. photoreceptor comprises a photosensitive layer formed on a support, wherein the photosensitive layer contains a charge-transporting polymer represented by [NAr13-Ar11(NAr14-Ar12)a]b (Ar11,12 = divalent group; Ar13,14 = aromatic ring, heterocyclyl; a, b = ≥1 integer; and a + b≥5) and a low mol. weight charge-transporting substance with a mol. weight 300-600. The electrophotog. photoreceptor exhibited resistance in scratch resistance and discharge resistance.

IT 622852-15-7
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(electrophotog. photoreceptor containing charge-transporting polymer and low. mol. weight compound in photosensitive layer)

RN 622852-15-7 CAPLUS
CN Poly[[(3-chlorophenyl)imino](9,9-dimethyl-9H-fluorene-2,7-diyl)[(3-chlorophenyl)imino][1,1'-biphenyl]-4,4'-diyl] (9CI) (CA INDEX NAME)



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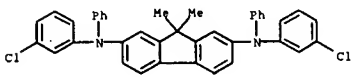
L8 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:868623 CAPLUS
DOCUMENT NUMBER: 139:371786
TITLE: Electrophotographic photoreceptor in process cartridge of electrophotographic image-forming apparatus
INVENTOR(S): Yoshimura, Kimihiro; Takagi, Shinji; Tanaka, Daisuke; Morikawa, Yosuke
PATENT ASSIGNEE(S): Canon Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003316035	A	20031106	JP 2002-117333	20020419
JP 3814556	B2	20060830		
PRIORITY APPLN. INFO.:			JP 2002-117333	20020419

AB The title electrophotog. photoreceptor has a charge-generating layer, a charge-transporting layer containing ≥2 kinds of charge-transporting materials, and a protective layer containing electroconductive particles and a hardenable resin on an electroconductive support, wherein the charge generating material satisfies the equation: $0.02<|\Delta Eox|\leq 0.13$ where $|\Delta Eox|$ is the difference of the maximum and min. oxidation potential of the charge-transporting materials and wherein the protective layer satisfies the equations: $1.5\leq Ac\leq 12.0$; and $5.0\leq AL\leq 25.0$ where Ac(atomic %) is total content of In and Sn in the surface layer and where AL(atomic %) is the total content of F and Si in the surface layer. The photoreceptor generates little ghost images.
IT 145068-92-4
RL: TEM (Technical or engineered material use); USES (Uses)
(charge-transporting agents in electrophotog. photoreceptor)
RN 145068-92-4 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(3-chlorophenyl)-9,9-dimethyl-N,N'-diphenyl- (9CI) (CA INDEX NAME)



L8 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:603530 CAPLUS
DOCUMENT NUMBER: 135:187795
TITLE: New amine compound for organic electroluminescent device showing longer luminescent lifetime and excellent durability
INVENTOR(S): Shimamura, Takehiko; Nakatsuka, Masakatsu; Ishida, Tsutomu
PATENT ASSIGNEE(S): Mitsui Chemicals Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 75 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001226331	A	20010821	JP 2000-34477	20000214
PRIORITY APPLN. INFO.:			JP 2000-34477	20000214
OTHER SOURCE(S):	MARPAT 135:187795			

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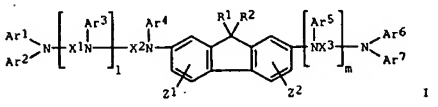
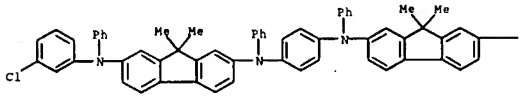


I

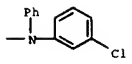
AB The new amine compound is represented by a general formula I (Ar1-7 = aryl; R1, R2 = H, alkyl, aryl, aralkyl; Z1, Z2 = H, halo, alkyl, alkoxy, aryl; X1-3 = arylene; l, m = 0, 1) and synthesized. The amine compound is suitable as a pos. hole injection transport material in an organic electroluminescent display device.
IT 354987-49-8 354987-70-5
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(amine compound for organic electroluminescent device showing longer luminescent lifetime and excellent durability)
RN 354987-49-8 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N''-1,4-phenylenebis[N'-(3-chlorophenyl)-9,9-dimethyl-N,N'-diphenyl- (9CI) (CA INDEX NAME)

PAGE 1-A

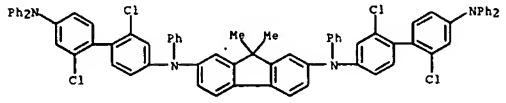


L8 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B



RN 354987-70-5 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis[2,2'-dichloro-4'-(diphenylamino)[1,1'-biphenyl]-4-yl]-9,9-dimethyl-N,N'-diphenyl- (9CI) (CA INDEX NAME)



L8 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:708486 CAPLUS
DOCUMENT NUMBER: 131:329660
TITLE: Triarylamine compound and luminescent device
INVENTOR(S): Senoo, Akihiro; Ueno, Kazunori; Urakawa, Shinichi; Hashimoto, Yuichi; Mashimo, Seiji
PATENT ASSIGNEE(S): Canon Kabushiki Kaisha, Japan
SOURCE: Eur. Pat. Appl., 46 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 953624	A1	19991103	EP 1999-303199	19990426
EP 953624	B1	20040204		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2000016973	A	20000118	JP 1999-113535	19990421
PRIORITY APPLN. INFO.:			JP 1998-132636	A 19980428
OTHER SOURCE(S):	MARPAT 131:329660			

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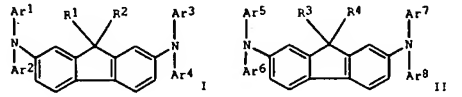
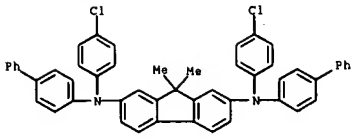


I II

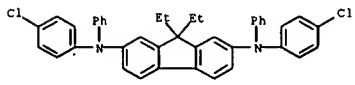
AB Triarylamine compds. are described by the general formula I or II (R1 and R2 = independently selected H, halo, (un)substituted alkyl, (un)substituted alkoxy, or (un)substituted aryl groups; Ar1, Ar2, Ar3, and Ar4 = independently selected (un)substituted aryl or heterocyclic groups; and ≥1 of Ar1, Ar2, Ar3, and Ar4 is a fused aromatic ring; R3 and R4 = independently selected H, halo, (un)substituted alkyl, (un)substituted alkoxy, or (un)substituted aryl groups; Ar5, Ar6, Ar7, and Ar8 = independently selected (un)substituted aryl or heterocyclic groups; and ≥1 of Ar5, Ar6, Ar7, and Ar8 is a C≥12 π-conjugated aromatic hydrocarbon). Electroluminescent devices using the compds. as a hole transport material or a luminescent material are also described.
IT 248584-71-6
RL: DEV (Device component use); USES (Uses)
(triarylamine derivs. and electroluminescent devices using them)
RN 248584-71-6 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis([1,1'-biphenyl]-4-yl)-N,N'-bis(4-chlorophenyl)-9,9-dimethyl- (9CI) (CA INDEX NAME)

L8 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L8 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:427040 CAPLUS
DOCUMENT NUMBER: 131:122912
TITLE: Electrophotographic photoreceptor and process cartridge and electrophotographic apparatus including same
INVENTOR(S): Nakata, Koichi; Tanaka, Takakazu; Kikuchi, Norihiro; Kunieda, Mitsuhiro; Kanamaru, Tetsuo
PATENT ASSIGNEE(S): Canon K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11184119	A	19990709	JP 1997-363743	19971217

PRIORITY APPLN. INFO.: JP 1997-363743 19971217
OTHER SOURCE(S): MARPAT 131:122912
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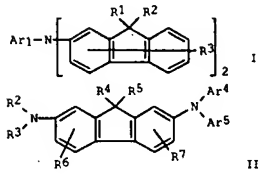


AB The title photoreceptor comprises a conductive support coated with a photosensitive layer containing hydroxygallium phthalocyanine as a charge-generating agent and, as a charge-transporting agent, ≥1 of compds. I and II [Ar1-5 = (substituted) aryl; R1, R2 = H, halo, (substituted) alkyl, (substituted) aralkyl, (substituted) aryl, R1 and R2 may form a ring; R3, R6, R7 = H, halo, (substituted) alkyl, (substituted) alkoxy, (substituted) aryl, R4, R5 = H, (substituted) alkyl, (substituted) aralkyl, (substituted) aryl, R4 and R5 may form a ring]. A process cartridge, including the photoreceptor and ≥1 selected from charging, developing, and cleaning means, and an electrophotog. apparatus, including the photoreceptor and a charging, imagewise exposing, developing, and transferring means are also claimed. The photoreceptor shows improved characteristics in photosensitivity and stable potential in repeated use.

IT 233262-23-2
RL: DEV (Device component use); USES (Uses)
(electrophotog. photoreceptor containing fluorene compound charge-transporting agent and hydroxygallium phthalocyanine charge-generating agent)

RN 233262-23-2 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-chlorophenyl)-9,9-diethyl-N,N'-diphenyl- (9CI) (CA INDEX NAME)

L8 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:764221 CAPLUS
DOCUMENT NUMBER: 130:30988
TITLE: Organic compound and electroluminescent device using the same
INVENTOR(S): Senoo, Akihiko; Toshida, Yomishi; Hashimoto, Yuichi; Ueno, Kazunori; Hashimo, Seiji; Urakawa, Shinichi
PATENT ASSIGNEE(S): Canon Kabushiki Kaisha, Japan
SOURCE: Eur. Pat. Appl., 57 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 879868	A2	19981125	EP 1998-303790	19980514
EP 879868	A3	19990107		
EP 879868	B1	20020403		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 11035532	A	19990209	JP 1998-145179	19980512
JP 3508984	B2	20040322		
US 6517957	B1	20030211	US 1998-78570	19980514
US 2003157364	A1	20030821	US 2002-266602	20021009
US 6858325	B2	20050222		
PRIORITY APPLN. INFO.:			JP 1997-142958	A 19970519
			US 1998-78570	A3 19980514

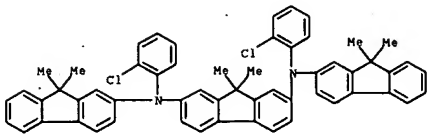
OTHER SOURCE(S): MARPAT 130:30988

AB Organic compds. are described which are represented by the general formula Ar1(Ar3)N-X-NAr2(Ar4) (X = (un)substituted arylene group or (un)substituted heterocyclic group; and each of at least 2 groups among Ar1, Ar2, Ar3, and Ar4 = (un)substituted fluorenyl, and the remainder = (un)substituted aryl). Electroluminescent devices formed of a pair of electrodes and an organic layer including ≥1 of the compds described above interposed between the electrodes are also described. Preparation of the compds entails reacting I-X-I with compds. described by the general formula HNArAr' (Ar, Ar' = desired (un)substituted fluorenyl and (un)substituted aryl groups).

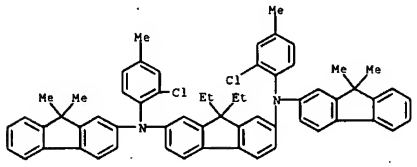
IT 216454-01-2P 216454-03-4P
RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(organic diamino compds. and their preparation and electroluminescent devices using them)

RN 216454-01-2 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(2-chlorophenyl)-N,N'-bis(9,9-dimethyl-9H-fluoren-2-yl)-9,9-dimethyl- (9CI) (CA INDEX NAME)

L8 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

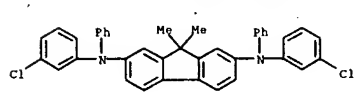


RN 216454-03-4 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(2-chloro-4-methylphenyl)-N,N'-bis(9,9-dimethyl-9H-fluoren-2-yl)-9,9-diethyl- (9CI) (CA INDEX NAME)

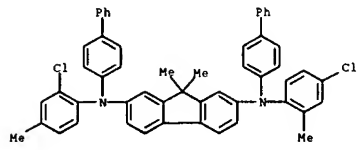


L8 ANSWER 20 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
compds. and)

RN 145068-92-4 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(3-chlorophenyl)-9,9-dimethyl-N,N'-diphenyl- (9CI) (CA INDEX NAME)



RN 203513-59-1 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis([1,1'-biphenyl]-4-yl)-N-(2-chloro-4-methylphenyl)-N'-(4-chloro-2-methylphenyl)-9,9-dimethyl- (9CI) (CA INDEX NAME)

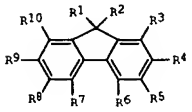


REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 20 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:154828 CAPLUS
DOCUMENT NUMBER: 128:198616
TITLE: Electrophotographic photosensitive member
INVENTOR(S): Nakata, Kouichi; Kikuchi, Toshihiro; Suzuki, Koichi; Nakamura, Kazushige; Kanemaru, Tetsuro
PATENT ASSIGNEE(S): Canon K. K., Japan
SOURCE: Eur. Pat. Appl., 100 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 823669	A1	19980211	EP 1997-306021	19970807
EP 823669	B1	20010314		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 10104861	A	19980424	JP 1997-207932	19970801
JP 10111577	A	19980428	JP 1997-207931	19970801
US 5932383	A	19990803	US 1997-908170	19970807
PRIORITY APPLN. INFO.:			JP 1996-209501 A	19960808
			JP 1996-209503 A	19960808
OTHER SOURCE(S):	MARPAT 128:198616			

GI



I

AB An electrophotog. photosensitive member is constituted by a support and a photosensitive layer disposed on the support. The photosensitive layer comprises a fluorene compound represented by the formula I [R1, R2 = (substituted) alkyl, (substituted) aryl, (substituted) aralkyl, or R1 and R2 linking together to form a ring; R3-10 = H, halogen, nitro, (substituted) alkyl, (substituted) diarylamino, (substituted) aryl, (substituted) aralkyl, or ≥2 of R3-10 being (substituted) diarylamino] and an arylamine compound represented by the formula NA1A2A3 [A1-3 = (substituted) aryl or (substituted) heterocyclyl] or a stilbene compound represented by the formula A4A5NX[CH=C(R11)]nR12 [A4, A5 = (substituted) aryl or (substituted) heterocyclyl; X = (substituted) arylene or divalent (substituted) heterocyclyl; R11, R12 = H, (substituted) alkyl, (substituted) aryl, (substituted) heterocyclyl, or R11 and R12 linking together to form a ring; n = 1 or 2] as charge-transporting compds. The combination of such compds. is effective in improving resistances to abrasion, crack, and crystallization of the photosensitive layer.

IT 145068-92-4 203513-59-1
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(electrophotog. photosensitive layers containing arylamine or stilbene

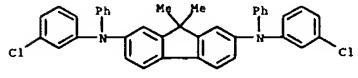
L8 ANSWER 21 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:394201 CAPLUS
DOCUMENT NUMBER: 127:5191
TITLE: Preparation of silicon-containing tertiary aromatic amines as charge transport compounds
INVENTOR(S): Kushibiki, Nobuo; Takeuchi, Kikuko
PATENT ASSIGNEE(S): Dow Corning Asia, Ltd., Japan
SOURCE: Eur. Pat. Appl., 31 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 771806	A1	19970507	EP 1996-117733	19961106
EP 771806	B1	20020227		
R: BE, DE, FR, GB				
JP 09127710	A	19970516	JP 1995-287634	19951106
AU 9670593	A	19970515	AU 1996-70593	19961104
AU 708183	B2	19990729		
US 5824443	A	19981020	US 1996-743265	19961104
CN 1156850	A	19970813	CN 1996-121687	19961106
PRIORITY APPLN. INFO.:			JP 1995-287634 A	19951106

AB A Si-containing charge transporting material A[R1SiR23-nQn]p wherein A denotes an organic group derived from a charge transporting compound having an ionization potential within the range of 4.5-6.2 eV, which is a tertiary amine having a plurality of aromatic groups, R1 is an alkylene group of 1-18 C atoms, R2 is a monovalent hydrocarbon group or a halogen-substituted monovalent hydrocarbon group of 1-15 C atoms, Q is a hydrolyzable group; and n and p are each integers from 1-3. E.g., 4-[(EtO)3SiCH2CH2]C6H4NPh2 is prepared in 92% yield from the hydrosilylation of (4-vinylphenyl)diphenylamine (1) with (EtO)3SiH and tris(tetramethyldivinyldisiloxane)diplatinum catalyst. 1 Was prepared in 84% yield from a Wittig reaction (NaH/Me4PBr/1,2-dimethoxyethane) of 4-(Ph2N)C6H4CHO (prepared from Ph3N using P(O)Cl3/DMF reagent in 81% yield).

IT 145068-92-4
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(oxidation and ionization potentials of)

RN 145068-92-4 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(3-chlorophenyl)-9,9-dimethyl-N,N'-diphenyl- (9CI) (CA INDEX NAME)



L8 ANSWER 22 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:394197 CAPLUS
DOCUMENT NUMBER: 127:5190
TITLE: Method of manufacturing a silicon-containing charge-transporting material
INVENTOR(S): Kushibiki, Nobuo; Takeuchi, Tikuko
PATENT ASSIGNEE(S): Dow Corning Asia, Ltd., Japan
SOURCE: Eur. Pat. Appl., 30 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 771807	A1	19970507	EP 1996-117734	19961106
EP 771807	B1	20020227		
R: BE, DE, FR, GB				
JP 09124942	A	19970513	JP 1995-287644	19951106
JP 3614222	B2	20050126		
AU 9670594	A	19970515	AU 1996-70594	19961104
AU 707231	B2	19990708		
US 5688961	A	19971118	US 1996-740738	19961104
CN 1150591	A	19970528	CN 1996-123304	19961106
CN 1067398	B	20010620		

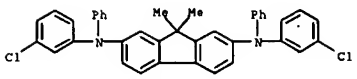
PRIORITY APPLN. INFO.: JP 1995-287644 A 19951106

AB A method is disclosed of manufacturing charge transporting materials which impart a charge transporting property to a polysiloxane resin, and which materials are soluble in the resin. The charge transporting material is an aromatic substituted tertiary amine with a plurality of aromatic groups, and a silyl group introduced via a hydrocarbon group, into at least one of the aromatic groups. The method uses an unsatd. aliphatic group bonded to an aromatic group which makes up the Si-type charge transporting compound, or employs a newly bonded unsatd. aliphatic group which is bonded to a silane in which the substituent for Si is H atom or a hydrolyzable group. This is conducted in the presence of a Pt compound as catalyst by hydrosilylation. The Si-type charge transporting material is then brought into contact with an adsorbent for the Pt compound, causing the Pt compound to be adsorbed on to the adsorbent. The Pt compound is removed along with the adsorbent, so that the concentration of residual Pt compound is <10 ppm. E.g., (4-vinylphenyl)diphenylamine reacts with (EtO)3SiH in toluene in the presence of tris(tetramethyldivinyldisiloxane)diplatinum catalyst to give 4-[(EtO)3SiCH2CH2]C6H4NPh2.

IT 145068-92-4
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(oxidation and ionization potential of)

RN 145068-92-4 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(3-chlorophenyl)-9,9-dimethyl-N,N'-diphenyl- (9CI) (CA INDEX NAME)

L8 ANSWER 22 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L8 ANSWER 23 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:662912 CAPLUS
DOCUMENT NUMBER: 123:270709
TITLE: Electrophotographic photosensitive member and electrophotographic apparatus, device unit and facsimile machine using the same
INVENTOR(S): Maruyama, Akio; Kikuchi, Toshiro; Amamiya, Shoji; Nagahara, Shin; Aoki, Katsumi
PATENT ASSIGNEE(S): Canon K. K., Japan
SOURCE: U.S., 43 pp. Cont.-in-part of U.S. Ser. No. 852,720, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5422210	A	19950606	US 1992-968465	19921029
JP 05100464	A	19930423	JP 1992-62306	19920318
JP 2584930	B2	19970226		

PRIORITY APPLN. INFO.:
JP 1991-77290 A 19910318
JP 1991-77291 A 19910318
JP 1991-77292 A 19910318
US 1992-852720 B2 19920317
JP 1992-62306 A 19920318

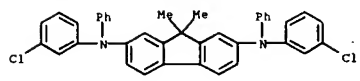
OTHER SOURCE(S): MARPAT 123:270709

AB An electrophotog. photosensitive member comprises a conductive support, a photosensitive layer and a protective layer, the protective layer containing resin formed by hardening a light-setting type acrylic monomer, and the photosensitive layer containing ≥1 compound selected from the group consisting of (A), (B) and (C) below: (A) styryl compds. (Ar1)(Ar2)N-Ar3-(CH:C(R2))n-R1 (m.p. ≤135°) [Ar1 and Ar2 are aromatic ring groups, Ar3 is a bivalent aromatic ring group or a bivalent heterocyclic group, R1 is an alkyl group or an aromatic ring group, R2 is a H atom, an alkyl group or an aromatic ring group, and n is 1 or 2, R1 and R2 possibly linking to form a ring when n = 1]; (B) triarylamine compound having a structure expressed by the following formula Ar4Ar5NAr6 (m.p. ≤150°) [Ar4, Ar5 and Ar6 = aromatic ring group or a heterocyclic group]; (C) hydrazone compds. A-[CR3:NNR4R5]m (m.p. ≤155°) [R3 is a H atom or an alkyl group, R4 and R5 are alkyl groups, aralkyl groups or aromatic ring groups, m is 1 or 2, A is an aromatic ring group, a heterocyclic group or -CH:C(R6)R7 (R6 and R7 are H atoms, aromatic ring groups or heterocyclic groups, but will never be H atoms at the same time)]. The photosensitive member suppresses the occurrence of cracks during forming of the protective layer, has high durability, and is free from any image defects.

IT 145068-92-4
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(charge transport agent for electrophotog. photoconductor)

RN 145068-92-4 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(3-chlorophenyl)-9,9-dimethyl-N,N'-diphenyl- (9CI) (CA INDEX NAME)

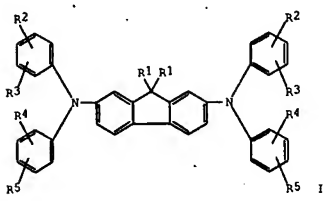
L8 ANSWER 23 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L8 ANSWER 24 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1994:90352 CAPLUS
DOCUMENT NUMBER: 120:90352
TITLE: Organic electroluminescent device
INVENTOR(S): Takuma, Hirosuke
PATENT ASSIGNEE(S): Mitsui Toatsu Chemicals, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

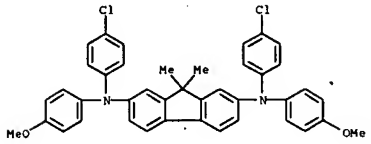
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05025473	A	19930202	JP 1991-181161	19910722
JP 3065130	B2	20000712		
PRIORITY APPLN. INFO.:			JP 1991-181161	19910722

OTHER SOURCE(S): MARPAT 120:90352
GI



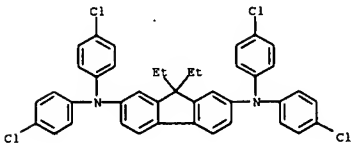
I

AB The device comprises a hole-transporting layer consisting of a fluorene amine derivative I (R1 = alkyl, aralkyl; R2-5 = H, alkyl, alkoxy, halo). The device has a long-life stability with low threshold driver inputs.
IT 152008-58-7 152008-59-8
RL: PRP (Properties)
(hole transporter, in electroluminescent devices)
RN 152008-58-7 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(4-chlorophenyl)-N,N'-bis(4-methoxyphenyl)-9,9-dimethyl- (9CI) (CA INDEX NAME)



L8 ANSWER 24 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

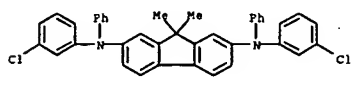
RN 152008-59-8 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N,N',N'-tetrakis(4-chlorophenyl)-9,9-diethyl- (9CI) (CA INDEX NAME)



L8 ANSWER 25 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1993:482826 CAPLUS
DOCUMENT NUMBER: 119:82826
TITLE: Electrophotographic photosensitive member and electrophotographic apparatus, device unit and facsimile machine using the same
INVENTOR(S): Maruyama, Akio; Kikuchi, Toshihiro; Amamiya, Shoji; Nagahara, Shin; Aoki, Katsumi; Tsuji, Haruyuki
PATENT ASSIGNEE(S): Canon K. K., Japan
SOURCE: Eur. Pat. Appl., 67 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 504794	A1	19920923	EP 1992-104575	19920317
EP 504794	B1	19980603		
R: DE, FR, GB				
PRIORITY APPLN. INFO.:			JP 1991-77290 A	19910318
			JP 1991-77291 A	19910318
			JP 1991-77292 A	19910318

OTHER SOURCE(S): MARPAT 119:82826
AB The title material comprises a conductive support, a photosensitive layer and a protective layer, the protective layer containing resin formed by hardening a light-setting type acrylic monomer, and the photosensitive layer containing ≥1 compound selected from the group consisting of (A), (B) and (C) below: (A) styryl compds. having a structure Ar1Ar2NAr3(CH:CR2)nR1 and a m.p. ≤135°. [Ar1 and Ar2 are aromatic ring groups, Ar3 is a bivalent aromatic ring group or a bivalent heterocyclic group, R1 is an alkyl group or an aromatic ring group, R2 is a H atom, an alkyl group or an aromatic ring group, and n is 1 or 2, R1 and R2 possibly linking to form a ring when n = 1]; (B) triarylamine compds. having a structure Ar4Ar5NAr6 and m.p. ≤150° [Ar4, Ar5 and Ar6 are each an aromatic ring group or a heterocyclic group]; (C) hydrazone compds. having a structure A[C(R3):NNR4R5]m [R3 is a H atom or an alkyl group, R4 and R5 are alkyl groups, aralkyl groups or aromatic ring groups, m is 1 or 2, A is an aromatic ring group, a heterocyclic group, or - CH:CR6R7 (R6 and R7 are H atoms, aromatic ring groups or heterocyclic groups, but will never be h atoms at the same time). The photosensitive member suppresses the occurrence of cracks during forming of the protective layer, has high durability, and is free from any image defects.
IT 145068-92-4
RL: USES (Uses)
(electrophotog. plate with protective layer containing, for crack reduction)
RN 145068-92-4 CAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis(3-chlorophenyl)-9,9-dimethyl-N,N'-diphenyl- (9CI) (CA INDEX NAME)

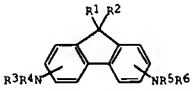


L8 ANSWER 25 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

L8 ANSWER 26 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1993:49248 CAPLUS
DOCUMENT NUMBER: 118:49248
TITLE: Electrophotographic photoreceptor using oxytitanium phthalocyanine and fluorene compound
INVENTOR(S): Kikuchi, Norihiro; Tanaka, Takakazu; Senoo, Akihiro
PATENT ASSIGNEE(S): Canon K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04159557	A	19920602	JP 1990-286397	19901023
PRIORITY APPLN. INFO.:			JP 1990-286397	19901023

GI



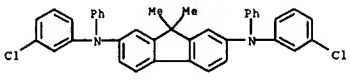
I

AB In the electrophotog. photoreceptor with a photosensitive layer coated on a support, the photosensitive layer contains crystal oxytitanium phthalocyanine having strong peaks in Bragg angle 2θ ± 0.2° = 9.0, 14.2, 23.9, and 27.1° in x-ray diffraction spectrum using CuKα, and fluorene compound I [R1-2 = H, (substituted) alkyl, (substituted) aralkyl, (substituted) aryl; R3-6 = (substituted) aryl]. The photoreceptor shows stable charging property and high sensitivity to longer wave length such as laser diode.

IT 145068-92-4
RL: USES (Uses)
(charge-transporting agent, electrophotog. photoreceptor using)

RN 145068-92-4 CAPLUS

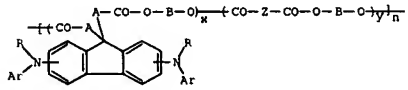
CN 9H-Fluorene-2,7-diamine, N,N'-bis(3-chlorophenyl)-9,9-dimethyl-N,N'-diphenyl- (9CI) (CA INDEX NAME)



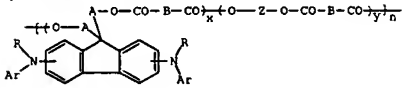
L8 ANSWER 27 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1992:72244 CAPLUS
DOCUMENT NUMBER: 116:72244
TITLE: Photoconductive imaging members with fluorene polyester hole transporting layers
INVENTOR(S): Ong, Beng S.; Baranyi, Giuseppa; Alexandru, Lupu
PATENT ASSIGNEE(S): Xerox Corp., USA
SOURCE: U.S., 15 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5034296	A	19910723	US 1989-332655	19890403
PRIORITY APPLN. INFO.:			US 1989-332655	19890403

GI



I



II

AB A layered photoresponsive imaging member is described comprised of a photogenerating layer, and in contact therewith a hole transporting layer comprised of fluorene charge transport polyesters: I and II [A, B, Z = bifunctional groups; R = alkyl or aryl group; Ar = aryl; x and y are mole fractional nos.; x > 0, n + y = 1 and n represents the number of repeating segments]. A photoconductor containing the above compound has improved cyclic stability and elec. properties.

IT 137891-76-0
RL: USES (Uses)
(as charge-transporting agent in photoconductor)

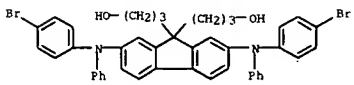
RN 137891-76-0 CAPLUS

CN Decanedioic acid, polymer with 2,7-bis[(4-bromophenyl)phenylamino]-9H-fluorene-9,9-dipropanol and 2,2'-(phenylenebis(oxy))bis[ethanol] (9CI) (CA INDEX NAME)

CM 1

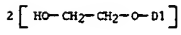
CRN 137891-75-9
CMF C43 H38 Br2 N2 O2

L8 ANSWER 27 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



CM 2

CRN 59472-36-5
CMF C10 H14 O4
CCI IDS



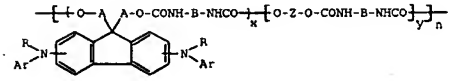
CM 3

CRN 111-20-6
CMF C10 H18 O4

L8 ANSWER 28 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1991:666750 CAPLUS
DOCUMENT NUMBER: 115:266750
TITLE: Photoconductive imaging members with polyurethane hole transporting layers
INVENTOR(S): Ong, Beng S.; Murti, Dasarao K.; Alexandru, Lupu
PATENT ASSIGNEE(S): Xerox Corp., USA
SOURCE: U.S., 15 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4983482	A	19910108	US 1989-332650	19890403
PRIORITY APPLN. INFO.:			US 1989-332650	19890403

GI



I

AB A layered photoresponsive imaging member is described comprising a photogenerating layer, and in contact therewith a hole transporting layer comprised of charge transport polyurethanes I [A,B,Z group of bifunctional linkages; R = alkyl or aryl; Ar = aryl; x and y represent the mole fraction nos. of the polyurethane structural composition units, subject to the provision that x > 0 and x + y = 1; and n represents the number of repeating segments. An electrostatic imaging method using the above polymethanes is also described. The material is useful in laser scanning imaging.

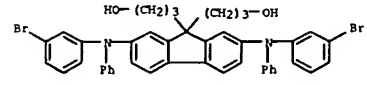
IT 137222-41-4 137222-89-0 137304-92-8
RL: USES (Uses)
(charge-transporting agent, in photoconductor)

RN 137222-41-4 CAPLUS

CN 9H-Fluorene-9,9-dipropanol, 2,7-bis[(3-bromophenyl)phenylamino]-, polymer with 1,6-hexanediol and 1,1'-methylenebis[isocyanatobenzene] (9CI) (CA INDEX NAME)

CM 1

CRN 137222-40-3
CMF C43 H38 Br2 N2 O2



CM 2

CRN 26447-40-5
CMF C15 H10 N2 O2
CCI IDS

1/2 [D1—CH_2—D1]

D1—NCO

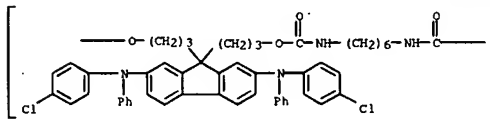
CM 3

CRN 629-11-8
CMF C6 H14 O2

HO—$(CH_2)_6$—OH

RN 137222-89-0 CAPLUS
CN Poly[oxy-1,3-propanediyl[2,7-bis[(4-chlorophenyl)phenylamino]-9H-fluoren-9-ylidene]-1,3-propanediyloxycarbonylimino-1,6-hexanediyliminocarbonyl] (9CI) (CA INDEX NAME)

PAGE 1-A



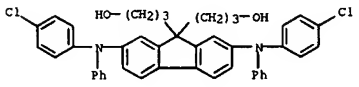
PAGE 1-B

]n

RN 137304-92-8 CAPLUS
CN 9H-Fluorene-9,9-dipropanol, 2,7-bis[(4-chlorophenyl)phenylamino]-, polymer with 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

CM 1

CRN 137304-91-7
CMF C43 H38 Cl2 N2 O2



CM 2

CRN 822-06-0
CMF C8 H12 N2 O2

OCN—$(CH_2)_6$—NCO